

Using semantic maps and word families in the beginning-level middle school foreign language classroom

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Abstract

This article describes the importance of vocabulary learning strategies. The paper describes several methods for making vocabulary learning more effective for young adolescents during the early stages of foreign language study.

A quick review of the current status of foreign language (FL) vocabulary research on middle-school-age learners is examined. Numerous studies imply that this age group has often been neglected in the research even though they are both cognitively and linguistically prepared to apply more depth-of-processing strategies to facilitate their learning of words in the target language.

The theoretical basis for vocabulary learning strategies (VLS) is first considered, followed by practical suggestions on how two strategies — semantic mapping and word families — can be used effectively in the FL classroom.

Over the past two decades, the importance of vocabulary during the preliminary stages of foreign language learning has received much attention. Closely aligned with this research has been an almost parallel interest in the role that vocabulary learning strategies (VLS) play in facilitating acquisition of second language (L2) vocabulary (Daller, Milton, & Treffers-Daller, 2007; DeGroot & Van Hell, 2006). Studies related to vocabulary learning and strategies indicate that foreign language learners achieve greater success in acquiring new words in a lexically rich environment, and that

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instruction and implementation of vocabulary strategies should include a combination of contextual and isolated word learning formats (Anton & Lantolf, 2004; Nation, 2001; Schmitt, 2000).

While much of the research related to vocabulary learning strategies has provided FL instructors with a wealth of beneficial information, the bulk of this research has tended to focus specifically on strategy use for older adolescents and mature adults. In contrast, research conducted on younger adolescents between 12-14 years of age — generally associated with middle school students — is surprisingly lacking in the literature (Met, 1994). One of the premises and limitations of researching young adolescents, according to Govea de Arce (2001), is the perceived difficulty these students have in expressing the mental processes involved in language learning. In other words, younger adolescents tend more toward interaction with peers and toward asking clarification questions when faced with difficulties rather than repeating the language under their breath or arranging newly learned materials into an organized manner. Govea de Arce’s study of strategy use among middle school-aged FL learners verified this premise in that there was an observable greater reliance by participants on their peers to complete the assigned target language tasks as compared to a more limited use of mnemonics or of graphic organizers. Although the participants were more prone to utilize rote memory and rehearsal strategies when assigned new target language vocabulary, Govea de Arce theorizes that deeper level cognitive processing strategies can be an essential component for FL learning. This reasoning is based on

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the premise that the results obtained in her research were demonstrative of what strategies were already being used without any teacher intervention.

Unfortunately, what is overlooked in this discussion is that these learners have already developed rich conceptual and semantic systems linked to their native language. These systems provide them greater facility to map new FL vocabulary word forms onto English conceptual meanings, and consequently they are quite capable of carrying out sophisticated learning and memory-based strategies to engage in learning tasks (Ellis,

2001; Kuhn, 2006; Wormeli, 2004).

New word learning is a gradual and incremental process requiring multiple exposures to the same word in a variety of contexts and collocations for acquisition to occur (Gass & Selinker, 2008). In this article two basic strategies are reviewed as well as two other methods that can facilitate the presentation of effective vocabulary instruction for younger adolescents. The two strategies reviewed are semantic maps and word families; additional methods include word walls and concept maps.

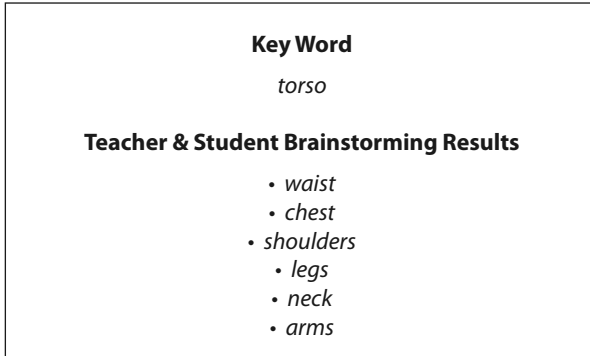
Semantic maps

Semantic mapping has been defined as providing “a brainstorming association that a word has with other words and then diagramming the results onto a visual model” (Sökmen, 2001). It is a means to “visually integrate new words with old words while promoting deeper levels of processing” (Stoller & Grabe, 1993). Stahl (2005) suggests that semantic maps be introduced as a two-part process. First, begin with the instructor

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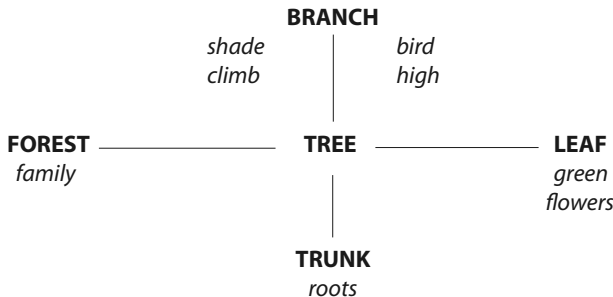
asking students to provide any given number of words related to a given topic, idea, phrase, or key word. Students and teacher then map out the connection between the ideas and words, which in turn supplies a visual framework of the interconnectedness between the selected items. (See Example 1)

Example 1. Teacher & Student Brainstorming Results of the Key Word *torso*



Ur (2006) suggests that the teacher select a key word, phrase, or idea for further elaboration. The word can be written on the board. Students then work individually, in pairs, or as a larger group to brainstorm other words, ideas, or phrases related to their own experiences or previous knowledge. For example, a word such as tree can lead to other associative related terms such as roots, trunk, high, family, leaf, forest, bird, green, climb, branch, shade, and flowers. These words can then be arranged into a “sun-ray” diagram so that the main key word tree becomes the focused term surrounded by its related vocabulary. Another diagram for displaying words associated with a key word is found in Zaid (1995). In his model associative vocabulary is organized into different categories to supply a visual demonstration of their interrelatedness and connections. After students have corroborated their individual or group diagrams, further discussion and focus on other key words or phrases can take place. An example of this model is found in Example 2.

Example 2. Associative vocabulary categorized with the key word *tree*



While these skill-getting activities generally lead to logical skill-using activities of greater fluency in discussions of word associations, their use should not be viewed as an end in itself. Instead, occasional employment of these types of strategies will facilitate student awareness of target language word families and aid in reinforcing the interrelatedness between words in a variety of contexts.

Word Families

Another strategy that shares some commonality with semantic mapping incorporates grouping words into their semantic categories so that the focus is on the affinity the words share in their roots and suffixes. This involves a morphological analysis of individual word parts. For example, familiarity with the word mend can lead to learning other forms and meanings associated with it: mends, mended, mending, mender, mendable, and unmendable (Nation, 2001). One method used to introduce this approach is word families. Word families are words built around a particular root, base, or headword that are then linked together to establish associations and general meanings among them. According to Nation (2001) knowing some of the common affixes and stems of words can lessen the learning burden of new word learning. Returning to the example mentioned above, once knowledge of the word mend has been acquired, learning the derivational associates linked to it becomes a much easier task because of their common, familial association. Much attention has been given this category of vocabulary enhancement as it has been linked to increasing a learner’s vocabulary in both the L1 and L2. Research suggests that students be given instruction in both inflectional and derivational affixes to enhance their learning of new L2 vocabulary (Laufer, 2001). Inflectional affixes provide an extension or a change in the root and supply information as to gender, number, person, and tense. For example, when the suffix [s] is added to the verb “eat” it supplies the grammatical categories of number (singular) and person (third person).

Derivational affixes on the other hand form new words that are semantically related to the base but form a different word often of a different syntactic category. These lexical forms belong to a single family of words and do not represent different words when considering estimates of vocabulary size (Grabe & Stoller, 2000). An example of this is found in the word inactivity which occurs less than once in every hundred million words of school text, yet its relation to higher frequency words such as active, activity, and activities increases its frequency substantially making it easier to be assessed as a member of a word family rather than assessed as an individual word (Nagy, Anderson, Schommer, Scott, & Stallman, 1989).

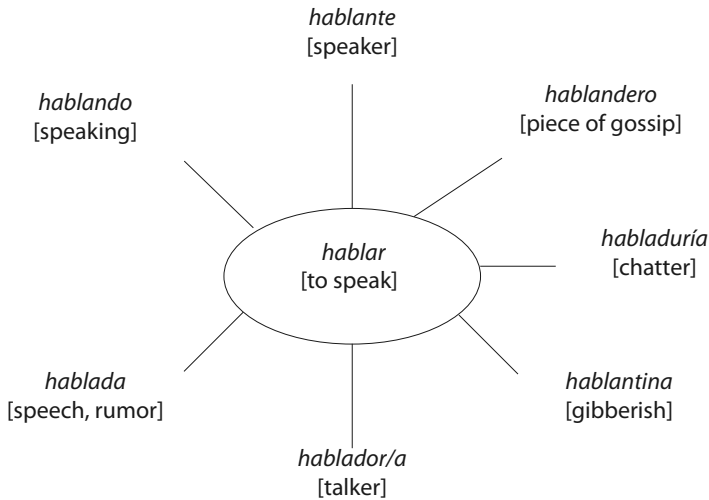
Schmitt and Zimmerman (2002) argue that word families maximize vocabulary learning in comparison to the simple introduction of individual words and their meanings. In addition, explicit instruction utilizing word families introduces learners to other members of a word’s family that can enhance vocabulary growth and establish a habit on the part of the learner to view a word’s derivatives as a matter of course (Schmitt, 2000). A visual diagram of this strategy could include a word map as suggested by Sökmen (2001). Using a target language

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dictionary, students find words that share the same stem or root and write them out on the map. Words are written in clusters around the main base or headword. An example of a word family is found in the derivations of the Spanish verb *hablar* [to speak]. The base word *habl-* can form other words by adding such suffixes as *-ador* which yields the noun *hablador* [talker], or *-ante* to produce the adjective *hablante* [speaker]. A diagram of some of the derivatives of the verb *hablar* is displayed in Example 3 below.

Example 3. Word Map of the verb *hablar* [to speak]



An elaboration of the strategies related to semantic mapping or word maps could include word walls (Marzano, 2004). Word walls are a student-created mural with either assigned or associative target language vocabulary (e.g., family members, food items). Students make pictures to depict the items they have selected and include them on the mural. The mural can then be hung up in the classroom or hallway for further reflection and reinforcement.

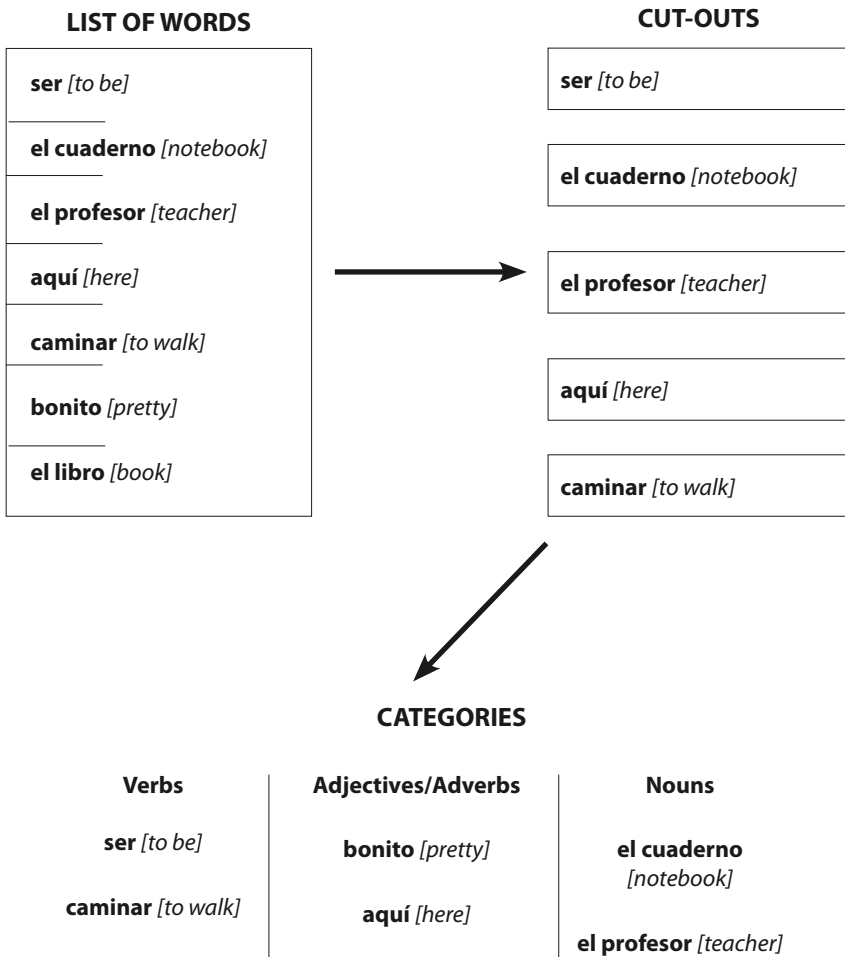
In addition, Saz (1996) suggests a concept map, which is a variation of the word map suggested by Sökmen. Students are given a list of target language words (nouns, verbs, adjectives) that they are to cut out individually. Once they have cut out the words, on a separate sheet of paper, students assemble the words into any given number of categories and classifications and share their results with the class. (See Example 4 on the following page.)

Conclusion

The literature on the use of vocabulary learning strategies in vocabulary acquisition during the beginning stages of FL learning is a subject of considerable interest. Although this article has focused more on the needs of younger adolescents, the methods and strategies reviewed will also work for high school-aged students since there is no compelling research suggesting differences in brain functioning between middle school and high school FL learners. While the use of semantic mapping and

word families is certainly not a new concept in the field, their use in the FL classroom at an early stage of language learning can facilitate greater word recognition in a variety of contextually-based classroom assignments and activities. As students become more adept at using these methods, they can utilize and combine them with other preferred strategies in order to become more proficient L2 word learners.

Example 4. Concept Map Cut-Outs & Categories



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