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# VOCABULARY LANGUAGE STRATEGIES: TRAINING FOR USE IN SECOND

# LANGUAGE ACQUISITION

A MASTER'S THESIS

# SUBMITTED TO THE FACULTY

# OF BETHEL UNIVERSITY

BY AMY C. LEAFBLAD

# IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF ARTS

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# VOCABULARY LANGUAGE STRATEGIES: TRAINING FOR USE IN SECOND LANGUAGE ACQUISTION

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#### Abstract

This paper examines vocabulary language strategies for use in second language acquisition. Research on particular strategies such as the keyword method is discussed, as well as the positive effects strategy training has had on students' vocabulary knowledge. Attention is focused on the fact that a strategy's usefulness depends on the personality and learning style of the learner as well as the particular task, resulting in the need for students to be exposed to a wide variety of strategies. The importance of strategy training for students is emphasized in addition to the noting of steps for successful training.

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#### **CHAPTER I: INTRODUCTION**

Vocabulary is the knowledge of the meaning and pronunciation of words (Dahlgren, 2008). One of the biggest tasks facing second language learners is how to acquire the large amounts of vocabulary necessary to be able to read, write, speak and comprehend in the new language. We start learning our first language from our parents who begin speaking to us from the day we are born. Indeed, we hear the language even before birth. We learn to understand and converse in this native language for a few years before we have any formal school training, which then adds hours of rich interactions, visual input and instruction in the language to further grow our vocabularies each day. For those in the United States whose native language is English, a chance to start learning a second language often comes at the end of middle school or high school. Instead of learning in an immersion setting, this second language is learned at a much slower pace, with just one hour or so of instruction and interaction in the classroom a day. And therein lies the challenge of trying to learn large amounts of vocabulary.

As a teacher of Spanish at the middle school and high school level, I am constantly seeking ways to help my students learn vocabulary. I can empathize with participants in one study where 81% of the students believed their vocabulary learning was inefficient and 68% of the teachers felt their vocabulary teaching was inefficient (Zheng, 2012). Whether or not it is related, it is interesting to note that there has also been a shift in education toward learner centered teaching and approaches versus more teacher led direct instruction. The mindset of education in which the teacher who holds the knowledge imparts it to students has changed.

Now we can envision teachers as guides and coaches who help students take responsibility for their own learning by giving them the tools needed and providing assistance in the learning acquisition process. In determining a research topic, I wanted to search for ways to help my students and myself become more effective in new vocabulary acquisition, so the focus of this thesis and my own line of personal inquiry became vocabulary learning strategies.

Learning strategies, as defined by Chamot, are procedures that facilitate a learning task (2005). They are ways we go about doing something. Language learning strategies are those we use to complete language tasks and vocabulary learning strategies are considered a subset of language learning strategies focused specifically on acquiring vocabulary. Research demonstrates that all students use language learning and vocabulary learning strategies without being taught to do so, but successful language students use more strategies and use them more frequently while less successful students use strategies less frequently and more inconsistently (Lawson & Hogben, 1996). In addition to the frequency of strategy use, another hallmark of successful strategy use is that skilled L2 (second language) learners select strategies that work well together and are tailored to the task at hand (Oxford, 2002). When investigating the professional literature related to this topic, it was found that the 1980's involved researchers like Oxford classifying strategies and the 1990's grew into experimenting with different strategies and interventions to see whether learners could be helped by learning new strategies or by using familiar ones in more effective ways (Cohen & Weaver, 2006).

#### **Research Questions**

Findings related to vocabulary learning strategies (VLS) and their implications for my own classroom use led me to develop my three guiding research questions. The first is, "Is VLS strategy training effective and worth pursuing?" If skilled L2 learners use more strategies and use them differently, can we teach all students to use a greater number of strategies and can we teach them how to best utilize them? If the answer is yes, then we need to dive in further. My second research question is, "Which strategies are most beneficial to students?" There is no exhaustive or comprehensive list of language learning strategies or vocabulary strategies in the field. Oxford's (2002) six language learning strategy categories are used widely in the field. They are metacognitive (e.g. self-monitoring and paying attention), affective (e.g. self-encouragement, anxiety-reduction), social (e.g. asking questions, become culturally aware), memory (e.g. grouping, imaging, associating), cognitive (e.g. reasoning, analyzing, summarizing) and compensation (e.g. guessing meanings and using synonyms). If we look specifically at VLS, they are often categorized into two types of strategies; discovery strategies are those used to learn a word's initial meaning. Examples of discovery strategies would be looking up the word in a bilingual dictionary, asking the teacher or a classmate, or making a guess using context clues. The second type of VLS is consolidation strategies. These have to do with keeping the meaning in mind or attempts to store the meaning in longerterm memory. Examples would include connecting the meaning with images in the mind or using flashcards to practice meanings (Oxford, 2002). So, are there some strategies that are more beneficial for students to acquire? Are there strategies that

every teacher should teach because they are the most effective? Finally, if we know that strategy training can be effective and we have some idea of the types of strategies students should be taught, my third research question is, "What are best practices around strategy instruction?" Should we give students a list on day one of a bunch of strategies and their definitions? Should we have separate training courses for strategy instruction? Can training be effective with technology?

Answers to these guiding questions can help second language teachers in the United States and abroad who are working with students to broaden their vocabularies. On a personal note, my understanding the answers to these questions will mean that I am helping my students grow as independent learners. The tools they develop in this area will help them all along their academic careers, long beyond their time in my classroom.

#### **CHAPTER II LITERATURE REVIEW**

#### Is Vocabulary Learning Strategy Training Effective and Worth Pursuing?

The necessity of developing a large vocabulary in the process of language acquisition is seen by common sense and well established in the field. It is also established that students on their own will use various language learning strategies in order to learn vocabulary words. This review seeks to address first, is training students in vocabulary learning strategies effective and worth pursuing for second language learners? If students already use a variety of strategies on their own, does research support using valuable class time in these efforts? The first section of this review will look at researchers' studies and conclusions in this area and also at the results of student perceptions. Do students who have experienced strategy training view it as useful?

Rebecca Oxford has been researching in the area of applied linguistics since the 1980's and has published numerous articles and books on second language learning. She also developed the SILL (Strategy Inventory for Language Learning) that has been used in various strategy studies. She concludes, "Second language learning strategies are important because they improve language performance, encourage learner autonomy, are teachable, and expand the role of the teacher in useful ways (1986, p.33). A second well-known name, and perhaps the most prolific researcher in the field of vocabulary learning and second language acquisition is Paul Nation. With over 200 articles published in academic journals, Nation (2011) also echoes the same sentiments as Oxford about autonomy and teachability. He reminds practitioners that the goal of strategy training is that learners can eventually be able to use the strategies without the help of the teacher. In his work with post-graduate students, teaching colleagues and language students he has consistently championed the importance of taking the time to develop and practice strategies for vocabulary learning (Coxhead, 2010).

In a small sample size (ten students) descriptive qualitative analysis study, Diaz (2015) worked with students deemed struggling to retain and increase their L2 (second language). The students were given metacognitive strategy training for vocabulary learning. These third to fifth grade beginning English language learners improved their vocabulary retention and became more conscious of the range of strategies available to them in language learning. Diaz noted an increase in the students' autonomy using the new strategies and concluded that even young learners could be taught meaningful strategies that could continue to be built on throughout their education.

In a study with students in Hong Kong making the transition from high school to University, David Nunan also set out to determine if learner strategy training makes a difference in several different areas (1997). One of the areas he researched was students' knowledge of strategies. In other words, can these strategies be taught? Sixty English learners were divided into a control group and an experimental group. The groups both took part in the same semester language course with the experimental group receiving training in 15 key language learner strategies systematically over the course of the semester. There were also pre and post questionnaires along with sub groups of students participating in interviews during the investigation to gather additional data. At the end of the semester, 90% of students in the experimental group indicated increased knowledge of the 15 core strategies taught compared to 27% who did not receive the training. That dramatic increase lends credibility to the claim that learning strategies can be taught explicitly to students. It is interesting to note that even without the explicit training on the 15 strategies in this study, 27% of students in the control group responded positively on the questionnaire about increased knowledge of the strategies. This could possibly be attributed to the students' attention being exposed to or drawn to the explanations on the pre-questionnaire. Learning of or increasing awareness of strategies is a first step in eventual use of strategies. So, in this case learners were exposed to the strategies on the pre-questionnaire, which could have been enough for some of them to remember the strategies, perhaps try some of them and report and increase in their knowledge of the strategies by the end of the semester. This does not negate the benefits of spending more time teaching and practicing strategies but could signal that even a brief introduction to various strategies can provide some benefits to students. In addition to knowledge of the strategies the experimental group received other benefits explored later in the student perceptions about strategy training.

An additional semester-long study of the effectiveness of explicit strategy training took place with Japanese students learning English at the university level (Mizumoto & Takeuchi, 2009). In order to focus on the variable of explicit strategy training in this carefully crafted study, 146 female students were first given a vocabulary test, motivation questionnaire and vocabulary learning strategies use questionnaire. Researchers used the results to form the control and experimental group evenly using those three factors. During their 10-week semester the students had one 90 minute class a week. The course material was the same with the only difference between the groups being that the experimental group spent 30 minutes of each class period receiving instruction in one cognitive and one metacognitive strategy and were also required to keep a learning log. The cognitive strategies focused on were as follows: vocalization, use of collocation or phrases, imagery, writing or oral rehearsal, grouping of semantically related words, mnemonics (keyword), association of the target words with familiar synonyms or antonyms, use of prefixes and suffixes, and effective use of vocabulary notes or cards.

Metacognitive strategies introduced were the following: start of vocabulary learning with a preview, expansion of one's own way of learning vocabulary, conscious input of English vocabulary, target setting in vocabulary learning, aim of designating time for vocabulary learning, attempts to use new words while learning new vocabulary, testing vocabulary regularly, and having a goal to remember a certain amount of words. At the beginning of class, students received a list of target words with example sentences and then they were shown a slideshow introducing and explaining the effectiveness of the new VLS for the presentation phase. Next in the practice phase, the instructor modeled the use of the strategies and students had the chance to practice them with their target words while also conversing about their use with classmates. They then filled out a Likert scale including their previous use of the target strategies, how useful they felt they were and whether they would like to try to continue to use the target strategies. For the third phase, the experimental group completed an assignment mandatorily using the target strategy and possibly including use of any previous target strategies. Then they wrote in their learning log about the experience and took a test on the vocab the next week. The researchers sum up their research with these five conclusions (p. 443):

- 1. Explicit teaching of VLSs results in improved vocabulary test scores.
- 2. Explicit teaching of VLSs results in increases of strategy use among learners with lower and moderate levels of such use
- Explicit teaching of VLSs may result in little change among learners with high levels of use; however, their teaching can confirm already held beliefs about their effectiveness.
- Some VLSs are quickly rejected due to their time-consuming nature or being perceived as inefficient in other ways.
- 5. Explicit teaching of VLSs may result in more intrinsically motivated learners.

How do students feel about strategy training? Do they perceive its usefulness? In Nunan's 1997 study mentioned earlier, he also investigated the effects of strategy training on student motivation, perceived utility of strategies and use of strategies. In the case of motivation over the course of the semester, 56% of the experimental group reported an increase in their motivational level compared to only 26% of students in the control group. In other words, students who were introduced to strategies and given chances to practice those strategies were more motivated by their language class in general. Teachers are continually looking for ways to increase motivation in their students and in this study equipping them with strategies that give them options and choices about how to learn more efficiently gave more than half of the students a stronger desire to learn in the classroom. In addition to increased motivation, according to the results of the pre and post questionnaire, 53% of students receiving strategy training reported an increase in their perceived usefulness of the strategies compared to 30% of students not receiving the training. The only area in which there was not a statistically significant difference between the groups was in the area of use of the strategies. Both groups greatly increased their use of the strategies, with the experimental group having a slightly higher increase, 80% to 73%. This could highlight the importance of modeling and giving students the chance to discuss and practice strategies instead of just giving them a list. The students in the control group increased their use of the strategies perhaps from their brief introduction to them in the pre-questionnaire. But without the training and chance to discuss or practice with guidance, only eight out of the 30 students could see more usefulness in them at the end of the semester than they did the beginning. One might conclude that students made briefly aware of strategies with no teaching or training behind it might indeed grow in their use of the strategies and try them but not actually understand or see why they are beneficial thereby not increasing their motivation in language learning. Since this study focused on other outcomes, it did not measure if the strategy training led to increased performance but it gives voice to students' views about strategy training in a positive manner.

In one of the most recent large-scale studies on vocabulary learning strategies instruction, a university researcher in Taiwan set out to investigate if instruction on VLS (vocabulary learning strategies) would alter student use,

perceived usefulness, and future intentions to use certain strategies (Lai, 2013). He also gathered data on the 180 learners' attitudes and opinions on strategy instruction. On the first day of class, students completed a questionnaire on their use of and perceived usefulness of 58 strategies coming from the five groups in Schmitt's 1997 taxonomy. A one-hour training session followed, explaining the strategies with examples in greater detail. Over the course of the year they were given multiple opportunities to gain more exposure to and practice each strategy in addition to being required to record usage and make sure they practiced each one at least 10 times. Vocabulary notebooks and weekly logs were kept. This comprehensive and multiple exposure approach gave students ample opportunity to learn and try out the different strategies. Lai discovered numerous positive effects of the training and concluded strategy training can alter student behaviors. A majority of students reported using a greater number of the strategies, using them more frequently, and finding such strategies useful. When results were examined according to proficiency levels, overall scores of strategy use increased significantly for the low level group after the training. In other words, the strategy training was effective in getting struggling students to use strategies more often which is good news because higher strategy use has been shown to correlate with higher levels of vocabulary and performance (Oxford 2002). Did students in Lai's study also show positive regard for their strategy training? In an incredibly strong showing, 96% of students selected that they agree or strongly agree as being positive toward the idea of strategy implementation and regarded using VLS as beneficial for enhancing their vocabulary growth at the end of the year.

Although the majority of research in this area lends support to the conclusion that strategy training for students is effective and a wise use of classroom time, there have been some mixed results in certain studies. As previously looked at, Nunan's experimental group did not show a significant difference in deployed use of the new strategies. A study of elementary EFL students revealed a relatively weak link between vocabulary strategy teaching and the learning strategies employed (Takac, 2008). In her review of the literature, Oxford (2002) lists the following reasons for inconsistent study results in this area: too short of strategy training, training tasks that were too easy or too difficult, training not being integrated into the normal classwork, and inadequate assessment of learners' initial strategy use.

#### Which Strategies Are Most Beneficial for Students?

One difficulty in the field of language learner strategy research is the fact that there is no comprehensive list of defined strategies. Since strategies are procedures or behaviors undertaken to complete a task, Oxford notes there are several hundred strategies available to students (2002). Attempts have been made to classify language learner strategies into more manageable chunks based on their characteristics. Oxford's six categories for language learning strategies have been used in other studies. These sets of L2 learning behaviors are based on the theory of learners as "whole people" and not merely information processing machines. Her categories include affective (to deal with the emotions of success or failure in the learning process), social (strategies used in the process of social interactions), metacognitive (used to plan, control or systematize learning), memory-related, general cognitive (reasoning, analyzing, summarizing), and compensatory (to make up for limited knowledge, like guessing, gestures).

As mentioned before, vocabulary learning strategies are a subset of language learner strategies. Researchers in China set out to create a classification system of VLS based on exploratory and confirmatory factor analyses (Zhang & Li, 2011). They used empirical evidence collected from a 60-item strategy use questionnaire to test various systems and create a new one that fit with the data. Their research looks somewhat similar to Schmitt's (2008) taxonomy of language learner strategies with a few differences. The memory and social categories were not independently supported by data and were not used. The cognitive factor is broken down into four more specific factors of strategies: 1<sup>st</sup> encounters with a word, building links (between new and already known words), guessing/compensation, and word use strategies (using the words in various formats to enhance memorization). The categories of metacognitive and affective are kept as the other two factors. Since this system is based on empirical data, one weakness to expansion is that the subjects were all young adult Chinese who had between seven and 11 years of compulsory English before University. There is room for further study with different age groups, language groups, cultural groups or differing levels of proficiency to see if the proposed model would still be valid.

Schmitt and Schmitt (1993) also set out to create a classification system of vocabulary language strategies. They first gleaned strategies from textbooks and reference books and then asked students and teachers to add any more known and used strategies. Their list of 37 VLS could be broken down into two large categories;

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strategies to "discover" a word's meaning and strategies to "practice" that meaning. These categories encompass Schmitt and Schmitt's definition of vocabulary language strategies as the "outwardly visible facilitators" of those processes of learning words. To have more understanding of VLS, the Schmidt and Schmidt strategies are listed here under the subcategories by the authors:

```
Initial Learning of a New Word's Meaning
USE REFERENCE MATERIALS
      -Bilingual dictionary
      -monolingual dictionary
ASK OTHERS FOR INFORMATION/WORK WITH OTHERS
      -Ask classmates
      -Ask teacher for English paraphrase or synonym
      -Ask teacher for translation
      -Ask teacher for a sentence using the new word
      -Learn meaning during group work
ANALYZE WORDS FROM AVAILABLE INFORMATION
      -Look at pictures or gestures to understand meaning
      -Check part of speech (noun, verb, etc.)
      -Guess meaning from reading context
      -Check prefixes, suffixes, and word roots to discover meaning
CREATE SYSTEM TO ANALYZE WORDS
      -Attempt to guess where a new word's meaning lies along a 'scale' of
      gradable adjective meanings
USE KNOWLEDGE OF OTHER LANGUAGES
      -Cognates
AVOIDANCE
      -Skip or pass a new word
      Studying and Remembering the Word's Meaning Once it is Known
REPETITION
      -Written repetition
      -Verbal repetition
STUDY THE FORMAL AND GRAMMATICAL ASPECTS OF A WORD
      -Study the spelling of a word
      -Study the way the word sounds
      -Study the word's part of speech
```

Study the word's root, prefixes, and suffixes

(MAKE AND) USE STUDY AIDS

-Take notes in class about new words

-Use word lists to study new words

-Use flashcards to study new words

-Use the vocabulary section in your textbook

-Use the configuration technique to remember word form

# PERSEVERANCE STRATEGY

-Continue to study the word often over a period of time

USE PHYSICAL ACTIONS

-Use physical action when studying (do throwing action when studying the word "throw"

-Say the new word aloud when studying it

# MANIPULATION OF MEANING

-Use the new word in sentences

-Paraphrase the meaning of the new word

## CREATE SYSTEM OF ASSOCIATIONS

-Study the word's synonyms and antonyms

-Learn the new words in an idiom together at the same time

-Connect the new word to some situation in your mind

-Use 'scales' to study gradable adjective sets

-Associate the word with others in the same topic (furniture, table, bed)

-Associate the word to others which are related to it (water, swim, drink)

## WORK WITH OTHERS

-Have your teacher check your word lists and flash cards for correctness -Study words with a group of students

# IMAGING

-Make an image of the word's meaning

-Imagine the word form and its spelling in your mind

-Use the Keyword Approach

USE OF KNOWLEDGE OF OTHER LANGUAGES

Cognates

The goal of the classification theories is ultimately to bring organization to

the immense number of language learner and vocabulary strategies. It is to identify

essential components underlying the strategies so that important strategies can be

taught by teachers and studied by learners (Zhang & Li, 2011). Are there certain strategies that can be identified as most effective?

Research can also be seen grouping strategies into the two categories of direct or explicit strategies and indirect or incidental strategies and attempting to determine which of the two categories is most beneficial. Oxford (2002) says direct strategies explicitly call students' attention to the meaning or form of a word to be learned while indirect strategies involve word learning that happens without particular intention to emphasis on the word.

One study comparing the two for usefulness in storing vocabulary learning for reading comprehension involved 60 Iranian pre-intermediate EFL learners at a university who were split into two groups (Naeimi & Foo, 2015). In this study, a pre-vocabulary test was administered to ensure an even split between the groups in regards to previous knowledge of the vocabulary. One group employed two direct VLS in their 10 academic sessions. The other group used two indirect VLS. Both groups were given the same eight reading passages to work through during the weeks and then administered a post-vocabulary test. The first direct strategy was structured reviewing. This involved reviewing the vocabulary list at different intervals and extending the length in between review sessions until the words became automatic. For example, review the words, review again 15 minutes later, one hour, three hours, one day and so forth. The second direct strategy was a mechanical technique of creating flashcards with the definition and sentence using the word. When students practiced they moved the words from one pile to another based on how well they knew them. The first indirect strategy used was organizing.

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This included various steps like planning and preparing the best possible study environment and keeping a language notebook. The second indirect strategy was discussing your feelings with others. Students were instructed to keep a diary of their thoughts, attitudes and strategies for learning more vocabulary. Time was given in class for sharing these ideas and learners were encouraged to share with others outside the classroom as well. After the 10-week post-vocabulary test the mean scores of the indirect group did not improve significantly. The mean scores of the direct strategy group did improve significantly and the treatment had a large effect on the scores. Researchers also observed that the students were more independent in using the direct strategies while students with the indirect ones required more assistance. At the pre-intermediate level this study lends credibility to the theory that direct vocabulary learning strategies can lead to higher achievement than indirect ones in storing vocabulary for reading comprehension.

Other researchers concluded that both direct and indirect strategies hold a needed place in the curriculum because they serve different functions of the word learning process. Learning a word has many steps and explicit deliberate learning is best for learning the form-meaning link (Nation, 2011). According to Schmitt (2008), learners can be said to have acquired the form-meaning link if they know the meaning of a word upon seeing it written or hearing it spoken. Schmitt's research findings indicated that the form-meaning link was the first and most essential lexical aspect to be acquired and that direct strategies almost always led to greater and faster gains (Schmitt, 2008). But to use words productively and not just recognize the meaning, a depth of knowledge about other aspects of the words is needed. Incidental or indirect learning strategies lead to contextual knowledge of the words like collocations (which words are often used in combination with the target word), frequency intuitions, and other grammatical knowledge (Nation, 2011). Both direct (explicit) and indirect (incidental) strategies are needed in language programs with direct being more beneficial at lower proficiency levels.

In organizing strategies into groups or along a continuum, vocabulary learning strategies can be thought of in terms of the depth of processing they require of the learners. According to Craik and Lockhart's levels of processing theory (1972), mental activities that require more elaborate thinking, processing or manipulation of a new word will help in the learning and retaining of that word. Strategies will involve creating mental images of a word or grouping a word with conceptually associated words would be thought of as deeper semantic processes and therefore more likely to help in word retention than shallower processes like rote repetition.

One such deeper processing strategy would be the keyword method. In line with Craik and Lockhart, it is effective because it creates a link between new information and students' schemata (Lawson & Hogben, 1996). Of research on individual vocabulary learning strategies, the keyword method is one of the ones that has received the most attention. Because of its importance, three studies involving the keyword method will be examined in this review.

The first study to examine involved 38 female senior high students in Iran learning English (Davoudi & Yousefi, 2016). Students were given a pretest to determine homogeneity in language proficiency and also a pre-word knowledge test to ensure none of the targeted words were already known. Groups had eight 25minute sessions over two months before their post vocabulary test. They were also given a surprise recall test three weeks later. The control group practiced the vocabulary words in a traditional method using translation, definition and memory strategies. The treatment group was introduced to the keyword method. In this method, students make an acoustic link between a familiar word and the L2 target word and then created an imagery link between the two. For example, in learning the Spanish word pato (duck) a student might come up with the image of a duck sitting in a pot because the word "pato" in Spanish sounds like pot in English. After initially getting some keyword images provided to them, students had to help come up with the seven to eight keyword images each session. After both post vocabulary tests, it was determined that the keyword group outperformed the traditional group in the immediate and the delayed recall test. The findings were statistically significant. This study could have been stronger had it included a larger sample size instead of 18 students in one group and 20 in the other. One of the strengths of this study was the surprise delayed-recall test. Findings could then be corroborated that the positive effect of the keyword method did not only have an immediate benefit but also contributed toward longer-term retention more so than other methods.

The mnemonic keyword method was also found to produce better results in comparison with a combination of mixed methods including contextual clues, word structure analysis and opposite word pairs. As opposed to having a control and experimental group, Siriganjanavong (2013) had his 44 students (only 37 completed all phases) students learn half of the 40 target words using the keyword

method and half of the target words using the combination mentioned above. In other words, the same students had a chance to learn in both ways. For the first week of class the keyword method was introduced with an explanation of how it could be used. In the second week, 20 vocabulary words were introduced in a presentation with 10 being introduced in the keyword method. In this study, the keyword method target words were introduced with a slide that contained a keyword picture, the definition in Thai, and a phrase connecting the image to the keyword. At the end of the presentation, students were given a cued recall sheet for an immediate recall test. This was repeated in week three. Means for the mixed method group went from a pre-test score of 6.22 to a post-test score of 7.22 while the keyword group increased from 5.35 to 9.89. So, while both groups were able to increase their score, the keyword group outperformed the other group significantly. All words were reviewed in week four and then in week six a surprise delayed-recall test was given to measure the method's effects over time. The keyword group went from an immediate recall mean of 15.07 to 9.89 two weeks later while the mixed method group went from 10.07 to 7.22. It was determined that the rate of forgetting over time was higher for the keyword group. At the same time, even though the keyword group forgot more as time went by, those students still ended with a higher score (9.89 compared to 7.22) overall. This is in line with Lawson and Hogben's (1996) results which indicated that the use of more elaborative strategies such as the keyword was associated with better recall. The majority of studies report group results but do not report individual results. Because this study reported each individual student's results set in a line graph with their pre and posttest scores it can be seen that the results of the methods varied by individuals. As a group the mixed method contingent increased their score by 1.0 but as individuals 12 out of 44 actually received a *lower* score in their post-test while the largest gains for individuals were seven, five and four points more. With the keyword, two students received a lower score and the top three gains reported were 11, 11 and 10 points. So we can see the keyword method overall outperformed the mixed methods but that results vary by the individual. More attention will be paid to this in the forthcoming section on individual variables.

One of the keyword studies with the largest number of subjects involved 778 third semester Spanish learners at a large United States university (Sagarra & Alba, 2006). In their literature review they noted over 50 studies that resulted in better retention with the keyword method than rote memorization and unstructured learning, but they also noted some methodological pitfalls in some of these studies between subject designs, small sample pools or things like not counterbalancing items. Because of that, they took painstaking measures in their research design. The original participant number was whittled down from 916 to 778 after ensuring the participants had zero knowledge of the target items, completed all stages and used the prescribed treatment in learning the words. The 24 target words were chosen carefully to be all three-syllable, concrete nouns that are considered low frequency occurring. A within-subjects design was chosen so all students learned eight of the 24 words using the keyword method, eight using rote memorization, and eight using semantic mapping. They were also split into three groups to include a presentation order variable of the methods to provide counterbalance, which continued with

changing the order of words in the post-tests as well. Students were instructed on the three methods. They would see a slide with the target word and its definition for one minute. After the eight words in a set, the students would take an immediate test on them before moving to the next set of eight. For the rote memorization they were instructed to write the word continuously for the minute while repeating it to themselves out loud continuously. For keyword they were asked to connect the Spanish word to an English word that sounded like or looked like some part of the Spanish word and record the connection in their notebook. In semantic mapping, they would create a diagram that displayed semantic associations of the target word with L1 words. The post-tests involved matching the target word to a picture and were given immediately following the presentations and then a surprise one given three weeks later. Results indicated a mean score of 3.93 followed by a delayed test mean of 1.48 (out of 8 words) for the semantic mapping. Rote memorization scores were 5.89 and 3.84 delayed. Keyword method results were 7.44 falling to 5.6 delayed. Thus, rote memorization outperformed semantic mapping and the keyword method outperformed both the other two in the immediate tests and the rate of retention was higher in the delayed test as well. This correlated with student opinions of the methods with 92% saying they thought the keyword method was the most effective of the three followed by 8% rote and 0% semantic. Sagarra and Alba note that the keyword method uses verbal and imagery cues so that if one fails the other can still be used. The keyword method is also praised for being a culturally responsible method since it can bring in students' cultural knowledge with its connections to prior background knowledge (Nzai & Reyna, 2014).

In an effort to derive which of the large numbers of strategies are most beneficial to learners, one research method is to take just a few and compare them against each other as seen with Sagarra and Alba (2006). This way of narrowing down strategies is also utilized in a study comparing the strategies of word writing versus inferring the meaning in context to see which would result in superior form and meaning recall of the target words (Candry, Elgort, Deconinck, & Eyckmans, 2017). The strategy of repeatedly writing the spelling of a word calls particular attention to the *form* of the word while inferring the meaning calls learners' attention to the *meaning*. After treatment, two different types of tests were administered, one where learners were required to provide the target words' meaning and the other in which they were required to write the target word (provide its form). Results showed higher performance by the word-writing group for both tests indicating that compared to having to infer meaning as practice, writing new words repeatedly has a stronger positive effect on the ability to remember meaning and write the new words later on.

An additional study design around vocabulary language strategies has been to quantify student use among dozens of strategies to determine which strategies students prefer and find valuable. Lai's (2013) study previously discussed with the full year implementation of 58 vocabulary learning strategies reported the top 16 strategies most frequently used and considered to be most useful by the students themselves. They were "Monolingual dictionary," "Discover new meaning through group work activity," "Study and practice meaning in a group," "Teacher checks student's flash cards or word lists for accuracy," "Use semantic maps," "Peg Method," "Use new word in sentences," "Group words together within a storyline," "Image word form," "Underline initial letter of the word," "Configuration," "Listen to tape of word lists," "Put English labels on physical objects," "Keep a vocabulary notebook," "Testing oneself with word tests," and "Use spaced word practice."

Keyword method excluded (it being found to be valuable in multiple contexts including varied ages and proficiency levels) most of the research conducted to find the best vocabulary learning strategies to teach students has resulted in the conclusions that there are many variables in the equation. An examination of some of those variables follows.

Nation (2011) notes that best strategy usage depends on whether the target words are considered high frequency (a relatively smaller group maybe up to a few thousand of useful words that are important no matter what use is made of the language) or low frequency (tens of thousands of words). He suggests using graded readers as a strategy in which learners can be exposed to the same high frequency words over and over again. For lower frequency, guessing from context, and deliberate methods like word cards, dictionaries and mnemonic techniques such as the keyword method.

The proficiency level of students is another variable that must be considered. Beginners or low proficiency learners benefit most from explicit strategies that focus on the word meaning link while more advanced learners can take advantage of more indirect strategies like contextual clues and guessing the meaning from context (Schmitt, 2008). Beginners do not have the vocabulary size to take advantage of the more indirect strategies, which are eventually needed to gain the more broad knowledge bases about words and how they are used in context along with their grammatical parts. Derivational Morphological Analysis is an example of a more complex strategy whereby students learn suffixes that can change the part of speech and cause variations in meaning. In a study comprised of first and second semester students learning Spanish, the second semester students were able to take better advantage of the strategy resulting in improving the aspects of word knowledge that are hardest to acquire while the strategy did not show an apparent effect on the learning of L1 to L2 equivalents (Morin, 2003).

The largest variable in determining which strategies turn out to be most effective is the learners themselves. Oxford (2002) identifies five language-learning styles as key determiners in L2 strategy choice: visual, auditory, analytic, global, and tolerance for ambiguity (or not). For example, while visual and auditory learners might be drawn to the keyword method and find it very useful for how they learn best, an analytic learner might prefer strategies that focus on grammatical word parts or breaking words down. Someone with tolerance for ambiguity will probably prefer guessing meanings from context while someone who does not tolerate ambiguity well will probably be drawn to strategies that involve looking up words in the dictionary. Learners who are aware of their own styles can build on their strengths by choosing strategies that correspond. In Lai's (2013) 58 strategy ESL study, when asked about strategies the students chose not to use or used little, 14%of students listed "didn't fit my personal learning style" as the reason. This fits with results from a 2012 study (Zokaee, Zaferanieh, & Naseri) investigating the impacts of perceived learning styles on learners' choice of strategies. The findings reported

meaningful relationships between auditory style learners and the use of social and cognitive strategies, group style and social strategies and also kinesthetic style and social strategies. In their discussion they emphasize that no single L2 instructional methodology is going to fit all students.

In addition to language learning styles, Oxford (2002) lists other factors such as motivation, career specialty, sex, culture, nature of the task, age and stage of the learner as things that influence learner choice of strategies and also the effectiveness of specific strategies. Schmitt (1993) adds from various studies the learners' target language, national origin, and amount of inhibition as all having an influence on a strategy's effectiveness. Holden (1999) reminds that learners need to be presented with a number of strategies from which to choose and draws the conclusion that the most consistent predictor of vocabulary retention is repeated exposure to new lexical items using a variety of means. Schmitt (1993) echoes that sentiment by suggesting that students need to be taught to use combinations of strategies to complete tasks.

The body of research continues to grow saying that language-learning students benefit from using a variety of vocabulary and other language strategies. So, it is not about finding the one size fits all magic strategy that will work for all students. Tseng, Dornyei, and Schmitt put it this way, "The most important aspect of strategic learning is not the exact nature of the specific techniques that students employ but rather the fact that they choose to exert creative effort in trying to improve their own learning" (2006, p.95).

#### What Are Best Practices Around Strategy Instruction?

How can teachers expand students' awareness, knowledge and ability to use vocabulary language strategies? In this section we will look at a model of strategy instruction developed by researchers in the field and a small sample of studies that have compared the use of computer-based learning programs in helping students learn and use VLS, with promising results.

The best approach to strategy instruction is an explicit one. Both L2 and non L2 studies have demonstrated that explicit strategy training produces better results (Oxford 2002). As seen earlier in this review, there is not one magical strategy or even two or three that are always superior. Instead, students need to be introduced to a variety of different strategies so that they can eventually decide for themselves what works best (Schmitt & Schmitt, 1993).

In her overview of language learning styles and strategies, Oxford emphasizes that, "The most effective strategy instruction appears to include demonstrating when a given strategy might be useful, as well as how to use and evaluate it, and how to transfer it to other related tasks and situations" (2003, p.11). Because of the noticed intersection between learning styles and preferences and choices in strategy usage, an entire approach has been developed and is being implemented in certain places called SSBI or Styles and Strategies Based Instruction. Taking their years of research along with others' and turning it into a book for teachers, Cohen and Weaver (2006) guide teachers into the approach with the goal of helping learners to become aware of different learning strategies, to know how to use and organize those strategies effectively in relation to their own style preferences and to learn how to transfer their use to new tasks and learning (2006). A five-step approach is prescribed:

- <u>Strategy Preparation</u>- finding out how much students know about strategies and if they can use them.
- Strategy Awareness-Raising- helping students look at what the learning entails, their own learner preferences and strategies used, strategies suggested by others and how they can evaluate strategy use.
- Strategy Instruction-explicitly taught how, when and why specific strategies might be used alone or clustered to facilitate learning.
   Teachers introduce, model and give examples.
- 4) <u>Strategy Practice</u>- while learning course content students either plan to use certain strategies, have their attention called to their use during or else debrief their strategy use afterward.
- 5) <u>Personalization of Strategies</u>- learners evaluate their use and look
   for ways to use strategies in other contexts

In the present and as we move forward, technology is becoming an increasingly larger part of our world and in turn our educational world. Many paper textbooks have been switched out for etext versions. Schools are starting to equip their students with 1:1 internet devices such as laptops or ipads at the secondary level, at the very least providing use during the school day if not having students take them home. It is a natural progression then for strategy instruction to begin to be introduced via online tools. Three studies will be examined in which students are learning vocabulary and language learning strategies with online tools.

In the first study, researcher Ranalli (2009) gathered data on one web-based training system to see if users find it useful, usable, and enjoyable for learning vocabulary language strategies. The subjects in this study were a convenience sample of 19 intermediate adult learners of ESL at a midwestern research university who come from a variety of L1 backgrounds. The learners worked their way through two sample modules consisting of video tutorials, narrated powerpoints and online exercises to complete with vocabulary tasks. Part of the purpose of the study was to gather feedback to use in finishing and improving the web-based training program called the VVT or Virtual Vocabulary Trainer. After completing the modules, participants filled out a 20-item questionnaire using a five-point Likert scale. The item about students "generally enjoying the site" received a mean of 3.9, "I would use this site in the future" received a 4.1, and "this type of training should be included in a language course" also received a 4.1. Some of the strengths of webbased training include engaging modes of input and practice, convenient access via the web, the ability for students to learn at their own pace and that motivation can arise from the site itself (Ranalli, 2009).

A 2010 (Kilickaya & Krajka) study compared the usefulness of an online vocabulary tool called Wordchamp against traditional methods of practicing with vocabulary notebooks, cards and paper dictionaries. At a private university in Turkey, 38 students (17-19 years old) were divided into two groups. Over the course of five weeks, the control group practiced with 10 academic reading passages, looking up words in their paper dictionaries, taking notes in their notebooks, and practicing with flashcards. The experimental group worked with the same 10 reading passages using an online glossary tool called Wordchamp. Hypertext glossing allows students to click on words and be given brief definitions. Wordchamp includes pre and post reading vocabulary development activities and it also allows users to mark words in the text, annotate on their own and have the marked words automatically compiled into lists. After the five-week practice period, a five-question multiple choice vocabulary test was administered. A second similar test was administered two months later to check for long-term retention of vocabulary. Students using Wordchamp outperformed the traditional paper methods by a statistically significant amount in both the immediate and in the delayed vocabulary test. This study could have been stronger had it included a larger sample size. In addition, a test of only five multiple-choice questions seems brief. There were many vocabulary items to be learned in 10 academic reading passages. If more words had been tested or a different set of five could results have differed? The choice to do a two-month delayed test, however, does lend credibility to the results. With more vocabulary words being remembered at that much later of a date, it seems that it was the online tools that led to greater storage in the memory rather than which chance five vocabulary words were tested.

Yu-Ju (2013) also found that students using a web-based program outperformed a traditional vocabulary notebook. In a study designed to develop and evaluate a learning system known as My Word Tools, 61 sixth grade learners of English in Taiwan were divided into three groups. All were given definitions and

basic explanations of 12 vocabulary-learning strategies and a list of 320 vocabulary words to learn over a five-week period. One group used a paper notebook for recording their learning and strategy use. The second used My Word Tools with two modules; one with a learning map for self-regulation and the other that dealt with strategy construction and allowed them to choose strategies and create within them. The third group used those two modules on My Word Tools and also had access to a third module; a co-sharing module that allowed them to see the creations of the other students. For example, if a student made up a sentence and drew a picture to go along with one of the vocabulary words, they could see that student's sentence and picture and what strategies they were choosing to use. Students took a vocabulary test one week prior to treatment and one week after. While all three groups improved their scores significantly, the two groups used My Word Tools outperformed the pen and paper group and the group who had access to the cosharing module performed best of all. In analyzing the data stored in the learning system, the co-sharing group used the greatest number of categories of VLS. In other words, the more VLS categories used, the greater the benefits for L2 word learning. In addition, the metacognitive strategies in the self-regulation model helped students plan and monitor their own learning.

In addition to increasing performance, computer assisted learning has been shown to be preferred by students in using vocabulary learning strategies (Ali, Mukunden, Baki, &Ayub, 2012). A relatively large sample size (123) of first year university students was divided into groups that learned vocabulary through the strategy of contextual clues (including being taught guessing from context and also think-aloud protocol), monolingual dictionary use, and a CALL (Computer Assisted Language Learning) program. Students using CALL had access to hyperlinks like "find out more about a word", "pronounce the word", "conjugation", and "listen to the word". In concordance with Ranalli (2009), students enjoyed using the computer-assisted learning and survey results showed a significant preference for this type of learning. The authors note that contextual clues strategies and dictionaries can be used in combination with computer programs and strongly encourage the use of technology in language learner programs as it aids motivation and leads to more positive attitudes.

As we see with the case of My Word Tools, Word Champ and CALL, webbased vocabulary and strategy learning systems are in the process of being created and refined for use in language classrooms. If we look at SSBI's five-step model we can note that their strengths have been in the areas of raising strategy awareness and practice. Even with a computer system, the classroom teacher can add to the learning by directly teaching the when, where, and why to use certain strategies and help students with the reflection process about what is working and how they might transfer their learning to other areas (Cohen & Weaver, 2006).

Although computer-assisted learning with regards to vocabulary and strategy learning is a promising area in development, strategy instruction does not depend on the use of such technology. What is most important is that strategies are explained along with their usefulness, modeled, students are given time to practice them in the context of learning tasks and helped to evaluate their usefulness (Cohen & Weaver, 2006). Students must also be made aware of a large variety of strategies so that they can find ones that fit with their personalities and learning styles (Oxford, 2002).

### **CHAPTER III: DISCUSSION AND CONCLUSION**

#### **Summary**

The learning of vocabulary in a second or foreign language forms the basis for reading, writing, listening, and speaking. Words are the building blocks of communication and there are certainly many to learn. Nation (2011) indicates that around 8,000-9,000 word families are needed to comprehend written text while around 6,000 to 7,000 word families are needed for spoken text. An important goal of second language learning is to acquire the around 2,000 highest frequency words as quickly as possible (Nation, 2011) and this is where strategies come into play. Language learning and specifically vocabulary learning strategies are key to helping students make these gains. Successful language learners use a wide variety of language learning strategies and are able to choose ones that are appropriate to the task at hand (Oxford, 1986), but many students need help getting to this point.

The first question guiding this review was, "Is vocabulary strategy training effective and worth pursuing?" In looking at the available literature on the subject, class instruction on VLS can help students gain awareness of learning strategies (Zheng, 2012). Learning strategies are teachable (Oxford, 1986) and learners who were less frequent strategy users benefitted the most from VLS instruction (Mizumoto & Takeuchi, 2009). Strategy training also increases motivation and knowledge of strategies (Nunan, 1997).

The second guiding question was, "Which VLS are the most effective and should be taught?" In reviewing the literature, the answer to that is not as straightforward. One particular vocabulary learning strategy, the keyword method,

has produced consistently positive results (i.e., Davoudi & Yousefi, 2016; Sagarra & Alba, 2006), but even it works at different rates for different students (Sirigonjanavong, 2013). Attempts have been made to classify the hundreds of possible L2 learning strategies in order to provide broad categories of organization or usefulness. The most used in the field is Oxford's 6 categories of cognitive, metacognitive, memory-related, compensatory, affective, and social (2003). Instead of a certain few strategies outperforming all others, research bears out that the main variables are the learners themselves. Language proficiency level (Schmitt, 2008) and language learning styles and preferences (Cohen & Weaver, 2006) play a large role in the effectiveness of a strategy. Factors like motivation, career specialty, gender, native culture, and age and the nature of the task (Oxford, 2003) can also play roles. Learners need to be introduced to a variety of strategies (Holden, 1999) because no single L2 method works for all students (Zokaee, Zaferanieh, & Naseri, 2012). In addition, neither direct strategies or indirect strategies are better; direct strategies are more effective for initially learning a word's form-meaning link and indirect strategies like guessing from context clues encourage more broad word knowledge in the higher proficiency stages (Nation, 2011).

The third guiding research question was, "What is the best method of strategy instruction?" Cohen and Weaver (2006) laid forth a comprehensive model emphasizing strategy preparation, awareness-raising, instruction, practice, and personalization. This can also be described as explicitly informing students how, when and why to use certain strategies, giving them chances to practice with those strategies and helping them transfer their use to other situations (Oxford, 1986; Lai, 2013). Chamot proposes the explicit training of strategies, saying, "Explicit instruction includes the development of students' awareness of their strategies, teacher modeling of strategic thinking, identifying the strategies by name, providing opportunities for practice, and self-evaluation (2005, p.123). Numerous web-based programs for strategy training and vocabulary learning and practice are underway and improving student performance (Ranelli, 2009; Yu-Ju, 2013; Kilickaya & Krajka, 2010). Apart from a computer program, Lai (2013) produced positive results, strategically introducing strategies throughout the year and giving many practice opportunities.

## **Professional Application**

Considering the amount of vocabulary students in language learning programs need to acquire, giving students tools to help them learn words more efficiently by teaching them a wide variety of vocabulary and other language learning strategies makes sense. Taking time in class to introduce, model, and practice strategies in the context of classroom tasks is a valuable and worthwhile use of time. Choosing which strategies to teach may be one of the more difficult issues. Teaching the keyword method where students choose an L1 word that connects to the target word's spelling or sound in some way and creating an image of the two together has been shown to be very effective. However, before students can work independently with this strategy it will need to be modeled, with examples created by the teacher. Then students can be given the opportunities to start creating their own images and connections with more benefits coming into play with the social strategies of sharing what they have developed, perhaps in small groups. Since strategy training involves more than just telling students about a strategy, teachers will need to model and provide practice opportunities.

Some strategies students are already aware of and use but need teacher training in how to use them most effectively. Using monolingual, bilingual or even online dictionaries to look up the meaning of a word is a common strategy used by students, but not without difficulty and error. Learners need to be aware of the different parts of speech (verb, noun, etc.) and how to find the root of words. As paper dictionaries increasingly become replaced by the use of online dictionaries, students are searching for a one to one correlation, which is not always correct. They also tend to grab the first meaning and need to be taught to take the time to look at other choices and choose by context. Flashcards are another common strategy that teachers might assume does not need any training. While many students are familiar with writing an L1 word on one side of the card and an L2 word on the other, they can be encouraged to try images instead, to include multiple definitions, an example sentence, synonyms or antonyms or a combination of these things.

Teachers need to help students take advantage of whatever technology is available to them to aid in their language learning. If students have etexts, those etexts most likely include supplementary materials with practice opportunities that they might never notice or try on their own. Some etexts include online flashcards that match up with the given vocabulary of each chapter.

If web-based vocabulary programs like Word Champ, My Word Tools or others are available, by all means take full advantage of them and help students 41

learn all of the different features. If students have access to devices with internet, there are many free applications that can provide practice in different VLS. Quizlet, for example, is a free app that allows students themselves to create their own online flashcards for any words they would like and also allows teachers to create sets of vocabulary. Within a set there are a variety of strategies students can use such as flashcards, spelling games, hear the word aloud and more. As technology use increases, teachers who make themselves aware of what is available for use, and introduce their students to it, will provide pathways for their students to increase learning and motivation.

One plan could be to introduce one or two strategies a week or with each chapter and them make sure students get opportunities to practice and talk about how beneficial they feel the strategy is for them personally and when they might use it in the future, thereby slowly building up a repertoire of available strategies for use.

Teachers who feel the need for more strategy awareness training themselves can seek out professional development opportunities, books on the subject, shorter websites with lists of strategies and explanations and pursue conversations with colleagues and administrators for their own learning.

# **Limitations of the Research**

A considerable amount of studies have been conducted on the keyword method and on guessing from context but apart from those two, there is a lack of research conducted on other specific vocabulary learning strategies. Teachers may find themselves knowing that VLS are important to teach but then left with no basic list of important ones from which to start. It has been found that effectiveness of different strategies depends on learner factors such as learning styles and age but studies are hard to find comparing, for example, which VLS might work best with auditory learners, visual learners, or kinesthetic learners.

It has been noted that a majority of studies on vocabulary acquisition have been completed on intermediate to advanced proficiency level students (Fazeli, 2012) thereby leaving open to question whether results would be similar for beginning and low proficiency students. A majority of acquisition and strategy research has been done in university settings, with less studies taking place in middle or high school level classrooms. The simple explanation may be that many researchers teach at a university level and therefore conduct their studies using their own students. Fewer middle and high school teachers are involved in pursuing academic studies for publication purposes. It can also be more difficult to isolate variables as noted by researchers in one high school level study. They discovered that implementing the same strategies in Spanish classrooms at two different high schools with very similar demographics resulted in significantly different outcomes which they surmised were due to outside factors like classroom management and student motivation (Erbes, Folkerts, Gergis, Pederson, & Stivers, 2010).

## **Implications for Future Research**

Studies need to be conducted with regards to the intersection between learning styles and strategies. If certain strategies are more effective for students depending on how they learn best then let us determine those so students can take advantage of their strengths. There also needs to be more research conducted with language learners at the beginning stages considered low proficiency and studies done in high school classrooms.

It is important for research to continue on the best methods for strategy training. Web- based strategy training programs should continue to be developed and then tested with regards to efficiency and user friendliness and then changes made in response to the feedback. Studies could also be done on the free applications available to teachers and students to see which ones hold the most value.

## Conclusion

Since vocabulary acquisition is one of the most challenging aspects of learning a second or foreign language, students need to be equipped with a variety of language and vocabulary learning strategies to help them with the process. When students are able to choose appropriate strategies for their personality and the task at hand they will increase the speed of their learning and also be in a position to take more responsibility for it. Increased learner autonomy is a great goal and the successful use of different cognitive, metacognitive, social, memory-related, compensatory and affective strategies will aid in the journey.

Teachers are needed to help students become aware of what strategies they already use, introduce them to new ones with modeling and practice opportunities, and help them reflect on their effective use and transfer them to new learning situations. In turn, the speed of their vocabulary acquisition will increase, helping motivation and allowing greater comprehension and connection with the language.

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Strategy training is an effective and worthwhile use of a language teacher's valuable classroom time.

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