The employment of vocabulary learning strategies by young Greek learners of English: Differences in relation to gender and grade

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Abstract
The purpose of the present study is to examine the effect of two independent variables—namely gender and grade—on the employment of vocabulary learning strategies (VLSs) by young Greek EFL learners. 455 fourth and sixth grade primary school students participated in this study by filling out a questionnaire on their use of 31 VLSs for the consolidation of different aspects of word knowledge (e.g. written form, pronunciation, meaning). The results indicated that both gender and grade can affect significantly the employment of individual VLSs.

Keywords: learning strategies, vocabulary, gender, grade, age, young

1. Introduction
Although it is true that the acquisition of vocabulary in L1 is a natural and rather effortless process, there is a totally different picture when we are thinking of vocabulary learning in a foreign language. As Nation (1990) points out, L2 learners need 5-16 exposures to the same word in order to master all its various aspects. In particular, Nation (1990) explains that vocabulary knowledge is not restricted to learning a word’s written form and meaning but also includes some other kinds of knowledge such as the spoken form, the grammatical behavior, the collocations, the register, the associations and the frequency of a word. Schmitt (2000:4) also states the complex nature of vocabulary acquisition by stressing that words are learnt gradually and after many exposures to the same vocabulary item.

However difficult it may be, learning vocabulary is an essential part of L2 acquisition. First of all, all language skills depend on vocabulary knowledge (Schmitt 2000). Speaking, listening, and writing would all be impossible unless we had some vocabulary knowledge. As far as reading is concerned, comprehension of a text is primarily based on the vocabulary size of an L2 learner (Schmitt 2000; Nation 2006).
Furthermore, lexical errors have been found to impede comprehension more than grammatical errors (Ellis 1994).

Thus, it is indicated that the role of vocabulary in successful L2 learning is crucial and at the same time, it is stressed that any unstructured approach to vocabulary can turn learning into a highly tedious and time-consuming process. In Greece but also in many countries all over the world, primary school learners attend English classes from the very first grades. For such young learners, acquiring all these various types of word knowledge can be quite a challenging task. Very young learners need guidance on how to handle all these new vocabulary items and the utilization of appropriate learning strategies could help them “make learning easier, faster, more enjoyable, more self-directed, more-effective and more transferrable to new situations” (Oxford 1990: 8).

A variety of taxonomies and classification systems have been used in different studies on VLSs with Schmitt’s (1997) taxonomy being one of the most well-known. Observing the scarcity of studies focusing on VLSs, Schmitt (1997) decided to compile a taxonomy of 58 VLSs which he based on previous classification systems such as Oxford’s (1990) strategy inventory. Schmitt (1997) divided this list into 2 categories: strategies for the discovery of a new word’s meaning and strategies for consolidating a word once it has been encountered. Schmitt (1997) also moved on to a further division. Discovery VLSs were classified into determination and social strategies whereas consolidation VLSs were sorted into social, memory, cognitive and metacognitive ones.

The present study has focused on consolidation VLSs. The employment of VLSs for the discovery of a new word’s meaning is not investigated here basically for two reasons. Firstly, since the questionnaire designed for the purposes of the main study would be administered to very young learners, it could not be too long. This means that one of the two categories should be excluded. Secondly, in the exam-based Greek educational system, young learners are required to learn and remember the words that they have been taught if they want to achieve good grades. “Dictation” and other traditional means of evaluation take place in most English classes in Greece. Thus, in a classroom environment that promotes memorization and testing to such a large extent, VLSs employed for the consolidation of vocabulary knowledge are of utmost importance otherwise vocabulary learning can end up being a totally frustrating and demotivating process for very young learners. For these two reasons, the present study
will investigate only the use of consolidation VLSs. These strategies will refer to the consolidation of one or more aspects of word knowledge such as pronunciation, spelling, or meaning. Of the four categories of consolidation VLSs presented by Schmitt (1997), only three – namely memory, cognitive and metacognitive strategies – will be investigated here since social VLSs like interacting with native speakers or group studying take place rather infrequently in Greece especially with learners of these ages. Moreover, the questionnaire will include an affective VLS related to self-rewarding since the researcher expects that this strategy presented in Oxford’s (1990) strategy inventory is popular with young learners.

2. Research methodology

2.1 Aim and research questions

The aim of the present study is to investigate the effect of two independent variables namely gender and grade (correlating with age and L2 proficiency level) on the employment of VLSs by young learners of English. In particular, this study seeks to answer the following two questions:

1. What is the effect of gender on the employment of VLSs by young Greek learners of English?
2. What is the effect of grade (correlating with age and L2 proficiency level) on the employment of VLSs by young Greek learners of English?

2.2 Participants and instrumentation

The participants of the study were 455 elementary school students. In particular, 227 of these students were fourth graders (ten-year-old learners) and the other 228 students were sixth graders (12-year-old learners). As far as their gender is concerned, the participants were 247 girls and 208 boys. The participants lived in one of the two following areas in northern Greece: Thessaloniki or Grevena. It must be noted here that differences in relation to grade entail not only age differences but also differences in relation to learning stage and L2 proficiency since the sixth graders had attended English classes at school for two more years compared to the fourth graders.

The instrument that was used for the collection of the data was a questionnaire designed by the researcher after she consulted some other well-known questionnaires (Cohen, Oxford and Chi’s 2001 Language Strategy Use Survey, Oxford’s SILL 1990 and Schmitt’s 1997). The questionnaire format used a 5-point Likert scale. It included
31 items referring to VLSs for the consolidation of words encountered before that cover one or more different aspects of word knowledge. Participants were asked to indicate how often they use each of the VLSs described in the questionnaire by choosing one of the following options: ‘always’, ‘usually’, ‘sometimes’, ‘rarely’ and ‘never’. Since the questionnaire was addressed to children, the five options were accompanied by relevant face emoticons to avoid comprehension problems. The questionnaire was written in the participants’ mother tongue, i.e. Greek in order to facilitate learners’ comprehension of their task. For the same reasons, the wording of the questionnaire was carefully adapted to the needs of such a young group of participants.

2.3 Procedure

After its construction, the questionnaire should be tested as to whether it achieves to be reader-friendly and reliable. At a pilot stage, the questionnaire was filled out by 28 (14 boys and 14 girls) fourth grade students. After the completion of this stage, the questionnaires were filled out by the rest of the participants anonymously in class during regular EFL classes. The questionnaires were distributed to the participants during the period April-June 2012. When the collection of the questionnaires was completed, the data were processed through Excel and SPSS (version 16). T-test analysis revealed the effects of the variables gender and grade on the employment of each individual strategy.

3. Results and discussion

3.1 Research question 1: What is the effect of gender on the employment of VLSs by young Greek learners of English?

The continuum ‘always’, ‘often’, ‘sometimes’, ‘seldom’ and ‘never’ is expressed numerically by the values ‘1’, ‘2’, ‘3’, ‘4’ and ‘5’ respectively throughout this section. This is to say that a score around 1 or 2 suggests frequent use of the particular strategy whereas a high mean score (e.g. around 4) reveals rather infrequent use.

The mean for overall strategy use was 3.00 for girls and 3.17 for boys which entails that both sexes make medium use of VLSs. The mean scores showed that girls employ 28 out of the 31 VLSs included in the questionnaire more often than boys. In particular, boys reported a stronger preference only to using flashcards, rewarding themselves and reading the words silently. The T-test revealed statistically significant
differences with the female participants outscoring the male ones. The 2-tailed significance was set at p<0.05. Table 1 shows the 8 VLSs which were found to be employed significantly more often by girls.

<table>
<thead>
<tr>
<th>Questionnaire Items</th>
<th>Mean (1=always, 2=often, 3=sometimes, 4=seldom, 5=never)</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. I read the English words aloud several times.</td>
<td>Boys 3.16    Girls 2.64</td>
<td>0.000</td>
</tr>
<tr>
<td>18. I listen to English songs and try to identify known English words.</td>
<td>Boys 2.72    Girls 2.24</td>
<td>0.000</td>
</tr>
<tr>
<td>21. I pronounce the word exactly as it is written even if I know that I pronounce it incorrectly so as to remember its spelling.</td>
<td>Boys 2.63    Girls 2.26</td>
<td>0.003</td>
</tr>
<tr>
<td>24. I check and monitor myself while learning the words.</td>
<td>Boys 2.20    Girls 1.87</td>
<td>0.003</td>
</tr>
<tr>
<td>7. I think of another word with similar spelling/ pronunciation.</td>
<td>Boys 3.18    Girls 2.81</td>
<td>0.004</td>
</tr>
<tr>
<td>20. I revise vocabulary often.</td>
<td>Boys 2.89    Girls 2.55</td>
<td>0.008</td>
</tr>
<tr>
<td>11. I create a mental image with the written form of the word.</td>
<td>Boys 3.08    Girls 2.74</td>
<td>0.016</td>
</tr>
<tr>
<td>14. I try to remember a song or a story or an occasion where the new word is involved.</td>
<td>Boys 3.32    Girls 3.06</td>
<td>0.049</td>
</tr>
</tbody>
</table>

Table 1

As it is shown in the table above, girls utilize a variety of VLSs-including memory, cognitive and metacognitive VLSs- significantly more often than boys. The highest statistical significance (p=0.000) was found in the employment of two cognitive VLSs. Girls were found to read the words aloud several times and also to listen to English songs significantly more often than boys. The employment of these two cognitive VLSs could be related to learning style preferences. Oxford (1993) presented findings that females are keen on auditory learning and this could explain their reliance on these particular VLSs. Catalán’s (2003), Gu’s (2002) and Wharton’s (2000) findings also indicate females’ higher use of the above two strategies.

More than half of the VLSs which were reported significantly more often by girls were memory strategies. Girls declared that they often pronounce a word exactly as it is written in order to remember its spelling. They also try to create a mental image with the written form of the word and they often think of another word with similar spelling/ pronunciation. The employment of these three VLSs clearly indicates that
girls pay a lot of attention to the spelling of the word (for similar conclusions see also Catalán 2003). The results also showed that girls revise vocabulary significantly more often than boys. Similar evidence was reported from other previous studies. According to Green and Oxford (1995), females review English lessons more often than males whilst Gu (2002) presents findings that females spend more extracurricular time per week for studying English vocabulary. The fact that girls often try to connect a word with a song or a story or an occasion comes as no surprise since females use language media such as songs more often than males (Catalán 2003; Wharton 2000).

Another VLS that was found to be employed significantly more often by girls regards self-monitoring. Girls reported that they check and monitor themselves while learning English vocabulary. Similar results were reported by Catalán (2003) who found that females significantly surpassed males in their employment of a similar metacognitive strategy (test oneself with word tests).

3.2 Research question 2: What is the effect of grade (correlating with age and L2 proficiency level) on the employment of VLSs by young Greek learners of English?

The mean for overall strategy use was found to be 2.97 for fourth graders and 3.19 for sixth graders (1=always, 2=often, 3=sometimes, 4=seldom and 5=never). This means that the younger and low-proficiency group utilizes VLSs more often than the older group. The frequencies obtained showed that the older group employs only 6 VLSs more often than the younger group. The subsequent T-test analysis was more revealing. The two groups differed significantly in their use of 20 VLSs. Fourth graders reported significantly more frequent employment of 18 VLSs whereas sixth graders surpassed the younger group in the employment of only 2 VLSs. In 8 VLSs, the statistically significant differences between the two age groups were maximum (p=0.000). Table 2 presents these differences.

<table>
<thead>
<tr>
<th>Questionnaire Items</th>
<th>4th graders</th>
<th>6th graders</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I read the words silently several times.</td>
<td>2.22</td>
<td>2.69</td>
<td>0.000</td>
</tr>
<tr>
<td>5. I make flashcards and study the words from there.</td>
<td>4.25</td>
<td>4.63</td>
<td>0.000</td>
</tr>
<tr>
<td>6. I create a story that includes all the new words I want to learn.</td>
<td>3.96</td>
<td>4.57</td>
<td>0.000</td>
</tr>
</tbody>
</table>
12. I group words according to their topic (vocabulary about the weather or clothes etc.).& 3.37 & 3.81 & 0.000 \\
15. Next to the English words, I write their pronunciation. & 2.57 & 3.25 & 0.000 \\
16. I reward and praise myself when I have learnt all the words I need to know. & 2.73 & 3.35 & 0.000 \\
17. When I do not remember a word, I look it up in a dictionary or in the Internet. & 2.48 & 2.00 & 0.000 \\
26. I connect one or more letters of the word with its meaning (e.g. “Look” has two eyes in the middle) & 3.52 & 4.04 & 0.000 \\
22. I connect the meaning of a word with a personal experience (e.g. in order to remember the word ‘snow’, I remember my playing in the snow). & 3.44 & 3.85 & 0.001 \\
7. I remember easier a new word if I think of another word that is written or pronounced similarly and I combine it with the new word (e.g. ill-pill, class-glass, happy- χάπι→ Greek word with similar pronunciation). & 2.79 & 3.17 & 0.003 \\
29. I schedule my program so as to find time to study English vocabulary. & 2.41 & 2.71 & 0.004 \\
3. I write the English words several times. & 2.17 & 2.52 & 0.005 \\
9. I combine the new word with a drawing or a picture or a schema. & 3.53 & 3.88 & 0.006 \\
21. I pronounce the word exactly as it is written even if I know that I pronounce it incorrectly (e.g. I pronounce “Wednesday” as /wednezdeı/ and not as / wenzdeı/). & 2.26 & 2.60 & 0.007 \\
30. I write a sentence next to a new English word. & 3.55 & 3.87 & 0.009 \\
20. I revise English vocabulary often. & 2.56 & 2.85 & 0.023 \\
10. I use rhymes in order to learn new English words more easily. & 3.70 & 3.96 & 0.026 \\
27. I write a synonym or an antonym next to a new English word (e.g. tall-short). & 3.59 & 3.85 & 0.036 \\
18. I listen to English songs and try to identify known words and expressions. & 2.59 & 2.32 & 0.04 \\
31. I write the English word and its meaning in my mother tongue several times. & 2.44 & 2.79 & 0.046 \\

| Table 2 |
Sixth graders surpassed fourth graders in the employment of two VLSs which concern listening to songs and looking up words. The significantly more frequent use of these two VLSs by the older group could be associated with the cognitive development of the learners. It seems that as learners mature cognitively, they tend to rely on more cognitive VLSs.

On the other hand, fourth graders showed a stronger preference for memory VLSs which help them learn and remember one or more aspects of the words. In particular, the younger group reported significantly more frequent use of flashcards, pictures/drawings and rhymes. They were also found to revise vocabulary significantly more often than sixth graders. One reason for the preference of these VLSs by fourth graders is that they are neither linguistically nor cognitively demanding. Thus, they can easily be used by learners at the first stages of learning. Relevant teaching procedures could also account for these results. Drawings, flashcards and rhymes are teaching practices often employed by instructors when they teach young learners not only because of their simple but also because of their amusing character. However, this can only be a tentative hypothesis here since no classroom observation took place as part of the present study. Younger learners also decide to pronounce a difficult word exactly as it is written in order to remember its spelling. The employment of this VLS is promoted by popular Greek assessment methods (such as dictation) which emphasize spelling instead of other aspects of word knowledge. Luckily, as learners develop linguistically, they abandon such strategies and fossilization of the wrong pronunciation is finally prevented. Thus, it seems that more years of exposure to language help learners get acquainted with certain letter-to-sound inconsistencies. Creating a story with all the words they want to learn or grouping words according to their topic are two more VLSs preferred by the younger group. The employment of the former VLS is not preferred by sixth graders because they usually have to consolidate a high number of vocabulary items. Thus, trying to create a story with all these words would be an extremely time-consuming process for sixth graders who are also not expected to have such a vivid imagination as their younger schoolmates. Fourth graders were also found to group words according to their topic and the reason for this preference can be related to the design of most course books for this level since most words are theme-related. The younger learners declared a significantly more frequent use of certain memory VLSs that help them learn the words through association. Fourth graders connect one or more letters of a
word with its meaning or connect the meaning of a word with a personal experience significantly more often than sixth graders. Since these VLSs tap upon learners’ imagination which is typically a characteristic of younger kids, older learners appear significantly less interested in using these VLSs. In addition, these VLSs are more easily employed with less abstract and less difficult concepts, hence the concepts taught at the first stages of learning. Fourth graders also try to remember a word by combining it to another word with similar spelling or pronunciation. This can be taken as evidence that the younger group relies more on similarity, analogy and resemblance. Fourth graders often try to consolidate word knowledge by writing a synonym, an antonym or a sentence. Teaching materials (such as textbooks) can also account for this preference since in most books for young and low-proficiency learners, words are often presented in pairs of synonyms or antonyms. For instance, the words “happy” and “sad” or “big” and “small” often appear together in the same lesson.

Fourth graders also use certain cognitive VLSs which help them practice their knowledge mainly through repetitions. Reading and writing the words (with or without its Greek equivalent) several times are VLSs that are employed significantly more often by the younger group of participants. Since these VLSs are less complex (both cognitively and linguistically) are supposed to be more suitable for younger and low-proficiency learners. Teachers or parents often encourage the employment of these VLSs at the first years of learning English till more complex cognitive and linguistic tools can be accessed. What is more, the number of words to be learnt by the sixth graders is much higher. Thus, it would be extremely time-consuming if they decided to write all these words and their meaning in Greek several times. The younger group writes the pronunciation next to the English word significantly more frequently. This VLS is employed by low-proficiency learners because they are not familiar with the grapheme-to-phoneme irregularities of the English language at the first stages of learning and they may try to increase their confidence and be sure about the way they pronounce the vocabulary items. Besides, at least in the Greek educational system, teachers often follow this teaching practice in order to assist the young learners.

Apart from memory and cognitive strategies, fourth graders reported more frequent use of one metacognitive and one affective VLS. These VLSs regard self-rewarding and scheduling one’s program so as to find time for studying vocabulary. As far as
self-rewarding is concerned, Oxford (1990) stressed the role of classroom instructional and testing methods on the choice of strategies. This means that the younger learners may decide to reward themselves more often because EFL teachers often follow the same policy rewarding them with stickers or stamps. Although there is no clear-cut answer why fourth graders are more eager to schedule their program so as to find time to study English vocabulary, we could speculate that this may happen for two reasons. Firstly, sixth graders have a heavier schedule and thus, it is more difficult for them to organize their studies. Secondly, this strategy is easily employed even by learners with low proficiency in L2 since it does not require any previous knowledge.

The question that must be answered here is why fourth graders employ a wider variety of VLSs compared to sixth graders. One possible explanation involves the notion of experimentation. As Psaltou-Joycey and Sougari (2010: 398) conclude “[h]aving experienced the stage of experimentation they [the older and more advanced learners] have probably deduced that certain strategies are more useful than others”. Sixth graders’ heavy schedule (both for school and extra-curricular activities) may not allow them to experiment with a variety of VLSs and for this reason they stick to a few VLSs which they think are effective. Motivational issues cannot be totally excluded from the interpretation of the results. Sixth graders are usually required to study many English words and this fact can have a demotivating and discouraging effect on the learners.

4. Pedagogical implications
The results showed that young learners make medium use of VLSs. We teachers could expose learners to a wide range of VLSs and train them explicitly on their use. Only when they are familiar with all the VLSs can learners choose the ones which better meet their needs according to their individual characteristics such as learning styles. Relevant teaching practices could also promote the employment of VLSs. If teachers apply a variety of VLSs in the classroom, then it will be much easier for learners to understand their usefulness. Moreover, teachers should initiate a discussion with their learners and they should exchange views and opinions on which VLSs work better for them. Influenced by their teacher and classmates’ opinions, some students may decide to experiment with some new VLSs. Finally, teachers need to pay special
attention to those groups of students employing a more restricted range of consolidation VLSs.

5. Conclusions, limitations of the study and further research

5.1 Conclusions
As far as gender is concerned, the pattern that emerged favored females. These findings could be related to learning style preferences (Oxford 1993) or motivational issues. Females have been shown to display higher motivation in various studies (e.g. Fukuchi & Sakamoto 2005; Pritchard 1987) and increased motivation has been connected with higher strategy use (e.g. Lan 2005, Vrettou 2011).

Differences in relation to grade may be associated with motivational issues or relevant teaching practices and materials. Moreover, it seems that the younger learners need to experiment before they find which VLSs are more effective for them (see also Psaltou-Joycey & Sougari 2010). Last but not least, developmental changes take place as learners mature cognitively and biologically and the employment of VLSs can vary largely across different stages of learning.

5.2 Limitations of the study and further research
The present study was based on a self-report instrument which was a questionnaire designed by the researcher. The interpretation of the results could be enhanced by classroom observation and think-aloud protocols. Another limitation of the present study is that the results could not be easily related to other studies in the Greek context since there is a scarcity of similar studies. To the best of my knowledge, this study is the first that examines the use of VLSs by 10-year-old Greek students since most studies on strategy use by children included older learners. Despite these limitations, the present study aims to have shed some light on the use of VLSs by young Greek learners of English.

Future research could focus on the strategy use patterns employed by learners from their first year of learning English and throughout their schooling. Moreover, further studies should relate developmental changes in the use of VLSs with other factors such as motivation and teaching practices. Finally, the use of other investigation methods (e.g. classroom observations and think-aloud protocols) will help us gain more insight into the employment of VLSs.
References


