MEMORY STRATEGIES: BOOSTING VOCABULARY LEARNING AND LEARNER AUTONOMY

HADIA HAKEM BENKHENAFOU
Department of English, Faculty of Letters and Languages, University of Tlemcen, Algeria

ABSTRACT

Vocabulary learning is one of the major challenges learners face in foreign language learning process. To allay this burden, EFL teachers may teach their learners how to learn it. Teachers, then, and within the learner-centred approach may train their learners to use memory strategies to help them tackle the task of vocabulary learning efficiently and independently; and with willingness and motivation from the part of the learners they can enrich their lexicon and even become more autonomous.

The present paper describes an experiment which was led with second-year university students to check the efficacy of teaching these strategies. Results showed that memory strategies, characterized as deep strategies, ensure a better retention of the learnt vocabulary and lead to more efficient learner autonomy. And above this, it gave students more self-confidence and motivation. But prior to this, the related literature review is presented about vocabulary and its importance in foreign language learning and about memory vocabulary learning strategies.

KEYWORDS: Vocabulary, Vocabulary Learning Strategies, Memory Strategies, Autonomy

INTRODUCTION

Foreign language learners remain struggling with vocabulary along their language learning process. The task may seem to be easy but due to its incremental nature learners experience difficulties in memorizing the large number of lexis encountered continuously. Its importance is undeniable, it is argued that it is central to language acquisition, whether the language is first, second or foreign (Decaricco, 2001) being even prior to grammar; Wilkins corroborates putting more focus on vocabulary rather than on grammar stating that while ‘without grammar very little can be conveyed, without vocabulary nothing can be conveyed’ (1972:111).

The task is so challenging that both teachers and students try to find the best and most efficient way of learning it. Teachers can introduce vocabulary either incidentally or intentionally. It is stated that substantial contact with the target language and extensive reading (thus incidental vocabulary learning) ensures learners’ vocabulary development (Nation, 2001; Oxford, 2001; Oxford and Scarcella, 1994). In the same vein, Ellis (1997) states that an ideal source for learning L2 vocabulary from context is reading (cited in Višnja, 2006). However, the new approach of vocabulary teaching states that vocabulary learning can be enhanced when the learners’ attention is directed consciously to vocabulary items and to the strategies used to learn it (Nation, 2001). The findings of a study led in the University of Minnesota would suggest that ‘explicitly describing, discussing, and reinforcing strategies in the classroom –and thus raising them to the level of conscious awareness– can have a direct payoff on student outcomes’ (Cohen, 1998:19). In other words, teachers’ concern is not only to teach learners, particularly vocabulary, but to teach them how to learn vocabulary, viz, to teach them
vocabulary learning strategies and the way they use them efficiently. These strategies are any ‘actions that learners take to help themselves understand and remember vocabulary’ (Cameron, 2001: 92). The purpose behind instructing these strategies is two-fold: (1) to enhance learners’ vocabulary knowledge and (2) to develop their ability to learn independently, i.e. autonomously. It is assumed that most vocabulary learning takes place outside the classroom setting and tends to be done alone. For this reason, it would be wiser to guide the learners in how to learn in order to enable them to approach the task of vocabulary learning on their own as successfully as possible, therefore, ‘such strategies are tools which learners must have if they are to be ready to assume the autonomy that process syllabus imply ... without them, they are likely to flounder’ (Skehan, 2000: 265). This autonomy becomes a necessity with the requirements of the learner-centred approach in teaching since the teacher is no longer the provider of knowledge and instruction in the classroom but a guide to the learners in their learning process. Learners taking in charge their own learning can cope confidently without teachers support. Through practice, they become capable of assuming responsibility for their own learning and gradually gaining confidence, involvement and proficiency (Oxford, 1990). Thus, they become more motivated to study since they develop an ability to learn. Dickinson (1995) and Little (2002) (as cited in Barillaro, 2011) corroborate stating that learner autonomy increases motivation, which in turn increases learning effectiveness. Consequently, a shift in the responsibility of teachers and learners in the classroom occurs, teaching learners to use learning strategies plays ‘a major role helping to shift the responsibility for learning off the shoulders of the teachers and on to those of the learners’ (Cohen, 1998:21).

A number of vocabulary learning strategies taxonomies appeared on the field of language acquisition, notably, Gu and Johnson (1996), Nation (2001) and Schmitt (1997) including different types of strategies that suit learners’ learning styles, age, gender, motivation, attitude and personality to cite but a few. The taxonomy referred to in the present study is that of Schmitt which was originally based on Oxford’s (1990) taxonomy of language learning strategies and the focus falls on memory strategies because of the age of the participants (being university students). In fact, age is one of the clear factors affecting the choice of a strategy rather than another (Ellis, 1994). Memory strategies, also traditionally known as mnemonics, refer to strategies of retaining new words using some imagery or grouping (Schmitt, 2000), thus, they help learners associate a new word with something already familiar to them (Oxford, 1990). Schmitt (1997) reports, while studying the use of vocabulary learning strategies of different age groups, that the younger the learners, the simpler the strategies used and that adult learners use strategies that require a ‘deeper’ mental processing like the strategy of imaging the word’s meaning.

Furthermore, according to the ‘Depth of Processing Theory’, the more efforts a learner exerts when manipulating information the better it is stored and remembered. The theory is proposed by the psychologists Craik and Lockhart (1972). Their new concept is that memory is just what happens as a result of processing information, they suggest that memory is the by-product of the depth of processing of information and the way information is processed can be through (1) shallow processing which involves rehearsal, i.e., maintenance repetition to help the learners hold information in the short-term memory and leads to fairly short-term retention or (2) deep processing which involves an elaboration rehearsal based on a more meaningful analysis of information that can be done through images, thinking and associating or linking words meaning to previous knowledge. The second one leads to long-term retention. The hypothesis, originally psychological, can be applied to pedagogy since the fields are interrelated. And the deep processing matches memory vocabulary learning strategies in such a way that a deep and elaborate processing of word knowledge (in terms of form, meaning and even collocation) can lead to better retention and minimizes attrition.
Schmitt’s model seems to be elaborate and comprehensive. He distinguishes between two main groups of strategies: discovery strategies, those who determine the meaning of new words encountered for the first time and consolidation strategies, those used to consolidate the meaning of words encountered again. The former includes determination and social strategies and the latter consists of social, memory, cognitive and metacognitive strategies. Memory strategies, which are the concern of the study, require an elaborate mental processing (Schmitt, 1997). They refer to the strategies through which the learners use some imagery or grouping, thus, they help the learners to associate a new word with something already familiar to them (Oxford, 2001). Twenty-seven sub-strategies are cited under this category but only ten are selected for the investigation. They are as follows: image word’s meaning, connect word with a personal experience, associate the word with its synonym (s) and antonym (s), associate the word with its coordinate(s), use new words in sentences, underline initial letter of the word(s) (use acronyms to use one of Oxford’s strategies), use the keyword method, group words together to study them, use cognates, use physical action when studying words. The selection is supposed to help learners tackle different lexical items; a strategy may function well for a word but not for another. In the case of words which have no cognates, another strategy is used; likewise, physical action is used mainly for action verbs but not for state verbs. Memory strategies are used actually to test the extent to which they help EFL learners improve their vocabulary storage and retention over a period of time and their autonomy.

Participants

The participants of this investigation are 54 second-year EFL students at the University of Tlemcen, Algeria. English is the foreign language in the country. The mother tongue is Arabic and French is the second language. These students have been exposed to seven years before starting university courses which means that, as second-year students, they have already eight accumulated years of English studies. Their age range is between 19 and 22 years old. 28 students served as experimental group and 26 as control group.

Instruments of the Study

To elicit the required data, the following tools were used:

Vocabulary Levels Test (VLT)

To know about learners’ vocabulary level of both groups (experimental and control) a vocabulary levels test (Schmitt et al: 2001, version 2) was introduced at the outset of the experiment. The aim was to learn whether or not a group is more proficient than another, thus, to ensure that vocabulary proficiency is balanced.

Treatment Material

To lead the investigation, a material was prepared by the researcher which included the ten selected memory vocabulary learning strategies to be taught to the experimental group. Vocabulary learning strategies were defined with a focus on the selected memory strategies with illustration (see appendix A). Students were handed the handout in which all presented explanation was summarised with exemplification as a reference in need. A practice was provided to ensure that the participants grasped the use of the different presented strategies.

Vocabulary Knowledge Scale (VKS)

This vocabulary test was introduced two weeks after the introduction of the strategies to the experimental group (after the teaching phase) to both groups following Vocabulary Knowledge Scale. It was first developed by Paribakht and
Wesche (1993:179) “to distinguish stages in learners’ developing knowledge of particular words”. It comprises five-points scale ranging from “total unfamiliarity, through recognition of the word with grammatical and semantic accuracy in a sentence” (Paribakht and Wesche, 1993:179). To assess the target items, a self-report for the 5-points scale is used to “elicit self-perceived and demonstrated knowledge of specific words in written form” (ibid), the scores ranged from 1 to 5 points (for more details see appendix B). The researcher selected twenty words from the already introduced during the experimental period to compare the degree of vocabulary retention of the two groups. From the presented vocabularies, the selected ones were unfamiliar to all students.

A Questionnaire

The researcher tried to tap information about the use of memory vocabulary learning strategies based on a five-graded Likert-scale (from always to never). Some questions were drawn from Strategy Survey Inventory for language learning (SILL) version 7.0 (Oxford, 1990). The questionnaire aimed as well to check learners’ autonomy and motivation after the introduction of the memory strategies.

Main Study

The main study was carried out in three steps: a Vocabulary Level Test (proficiency level), a treatment (the introduction of memory strategies/ the teaching phase), and a Vocabulary Knowledge Scale (two weeks after the teaching phase). Both groups were taught the same lexical items and during the same period. The steps are explained below.

Pre-Test: Vocabulary Levels Test

The VLT was administered to both groups 2 weeks before starting the experiment to measure learners’ vocabulary proficiency level and to ensure the balance between the two groups proficiency level.

While-Test Treatment

The treatment took place at the same period and the allotted time for teaching and the content was the same.

Control Group

Vocabulary items were introduced to the control group through some techniques such as:

- Writing the words on the board.
- Explaining the meanings of the words
- Explaining their parts of speech.
- Presenting words in collocation.
- Presenting the meaning of words with synonyms and antonyms.

Experimental Group

Teaching vocabulary in this group was different, an action plan was developed focusing on making the students “aware of the need to become independent learners by recognizing the strategies they possess and those they lack” (Ghazal, 2007: 90). The steps of the treatment are as follows:

- Learners’ awareness of the importance of vocabulary in facilitating the learning process was raised.
Students’ consciousness of the vocabulary learning strategies they already have at hand from learning L1 and L2 was raised to make them familiarized with the concept of strategies.

Memory vocabulary learning strategies were explained and illustrated.

Learners were trained to use the strategies during the same lecture (with a fill-in the gaps exercise with a provided list of words –mainly low-frequent words). They were allowed to use monolingual dictionaries to find out the meaning of the new words. A discussion was held about the meaning of words and a reflection was urged on the type of the strategy to be used for vocabulary retention.

Post-Test: Vocabulary Knowledge Scale

To check students’ vocabulary retention, the VKS was introduced to both groups 2 weeks after the teaching phase. It is considered that delayed recall after two weeks under experimental conditions is normally referred to as ‘long-term retention’ (Yongqi Gu, 2003).

Post-Test: Questionnaire

The questionnaire was handed to the students just after the test to know about their receptivity to the memory strategies and at the same time to check their autonomy and motivation.

It is obvious that a number of research questions motivate the investigation, they are:

Research Questions

- Do memory vocabulary learning strategies lead to a better retention of the learnt vocabulary?
- Which of the strategies are mostly used?
- Does the use of memory vocabulary learning strategies foster learner autonomy and motivation in vocabulary learning?

RESULTS AND FINDINGS

Results from the collected data are analysed quantitatively in what follows to respond to each of the suggested hypotheses. But prior to check any hypothesis, findings from the vocabulary levels test introduced at the outset of the experiment (pre-test) are presented. Then, to measure students’ vocabulary level of both experimental and control groups, a t-test for correlated data was calculated. The results are presented (in per cent) in table 1.

<table>
<thead>
<tr>
<th></th>
<th>2,000 Words Level</th>
<th>3,000 Words Level</th>
<th>Academic Word Level</th>
<th>5,000 Words Level</th>
<th>10,000 Words Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>85.18</td>
<td>67.77</td>
<td>54.4</td>
<td>49.6</td>
<td>15.06</td>
</tr>
<tr>
<td>Control group</td>
<td>82.8</td>
<td>68.53</td>
<td>69.89</td>
<td>50.38</td>
<td>11.19</td>
</tr>
</tbody>
</table>

It is apparent from the table that students of the two groups enjoy a balanced vocabulary proficiency level (p>.05) even though it seems inadequate for university students. It is worth noting here that it is not within the scope of the present study to evaluate students required level in vocabulary. However, a brief explanation of levels of knowledge could
be introduced. Students’ scores in the first level (2,000 words) represent vocabulary knowledge of the most frequent words in English which provide the necessary lexical resources for basic everyday oral communication (Schonell et al., 1956 cited in Schmitt et al., 2001) provided that it is not less than 75%. Students’ scores less than this enable them to cope only with some limited and predictable situations (Meara, 2010). The 3,000 words level represents the threshold which enables students to begin to read authentic texts. As for the 5,000 words, this level of knowledge provides adequate vocabulary allowing the learners to read authentic texts and to infer the meaning of the new words from the context and understand most of the communicative content of the text (Schmitt et al., 2001). It is clear from the results that students’ knowledge, in general, remains insufficient to do so. Yet, the balanced results avoid any doubt if the results for the vocabulary knowledge scale of the studied vocabulary of the experimental group are higher than those of control group. Moreover, results showed that the vocabulary proficiency level within students is not balanced; this clearly explains that there are students who are more proficient than others.

**H1:** The use of memory vocabulary learning strategies does not necessarily lead to a better retention of the learnt vocabulary.

To find out the treatment effects, i.e., the efficiency of the use of memory vocabulary learning strategies, a t-test was carried out to compare students’ results for the vocabulary knowledge scale meant to measure students’ retention of the studied vocabularies.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>99.1</td>
<td>-2.154</td>
<td>1.9</td>
<td>.044</td>
</tr>
<tr>
<td>Control</td>
<td>82.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is apparent from table 2 that gains of the experimental group are greater than those of the control group with means values 99.1 and 82.1, respectively and \( p = .044 \). Therefore, the use of memory vocabulary learning strategies helps students of the experimental group outperform in the test compared with the students to whom the strategies were not introduced. These data do not provide support for the first hypothesis. Consequently, the alternative hypothesis is accepted proving the efficiency of the use of these strategies to retain the studied vocabulary.

**H2:** Most of the strategies are frequently used to learn the studied vocabulary.

To measure students’ use of the strategies, Cronbach alpha was carried out. This test is used when measures have items that are not scored simply as right or wrong such as Likert-scale where responses are scored from 1 to 5 depending on the selected options (Ary, Jacobs and Razavieh, 1972). The calculated reliability is 0.53 (i.e. \( \alpha = 0.53 \)). Students’ responses revealed that not all these strategies were used. The discrepancies between the mean values varies from 4 to 1 reflecting the frequent use of the keyword method and putting the word in a sentence (4.07), and imaging word meaning (4) strategies (at the frequency ‘often’). Whereas, the use of connecting the word with its synonyms and antonyms (3.78), associating the word with a personal experience (3.25) and using cognates (3) strategies are reported at the frequency ‘sometimes’ on the Likert-scale. The least used strategies are associating the word with its coordinates, grouping words together to study them and using physical action strategies with a mean value of 2.82 (at the frequency ‘seldom’). The only strategy which is not used is underlying initial letters of word to form an acronym to be remembered (1.32). The bar-graph clearly represents the difference in the use of the strategies.
From the students’ responses to the use of the strategies and the value of $\alpha$ being less than 0.6 which is the least value to accept a hypothesis, it is clear that the suggested hypothesis is rejected giving room to the alternative hypothesis stating that not all the strategies are used by the learners in question.

**H3:** The use of memory vocabulary learning strategies helps learners become more autonomous and more motivated in their vocabulary learning.

The questionnaire which was introduced to the students aimed at measuring their autonomy and motivation after the use of the strategies. Again, Cronbach alpha was run to calculate the results since they were asked to select from a five-points Likert scale from strongly agree (with a score of 5) to strongly disagree (with a score of 1). The results reported a mean value of 4 for both autonomy and motivation which corresponds to agree and the calculated alpha was 0.61. This explains that the majority of the students agree that the use of the strategies helps them become more autonomous in their vocabulary learning and raises their motivation to learn more as they are equipped with the tools that help them do so.

**DISCUSSION**

The aim behind this experiment was to explore the extent to which the use of memory vocabulary learning strategies help EFL learners at the University of Tlemcen to promote their vocabulary knowledge and autonomous learning. As it has earlier been mentioned, these students’ vocabulary level seems inadequate for university studies even though they have studied English as a foreign language for more than 7 years. This may be due to the previously used system of correction in the Baccalaureate exam lacking severity which gave the opportunity to learners of lower proficiency level to study at the university. In fact, a good number of students are proficient and do not experience the same difficulty in vocabulary learning as that of low or mid-proficient students.

The results indicate that students of experimental group to whom memory vocabulary learning strategies were introduced were better than those of the control group. This entails that students gained not only richer vocabulary store but they became equipped with tools that help them tackle the task of vocabulary learning. This doesn’t mean that they haven’t prior strategies before teachers’ instruction. On the contrary, this reinforces the strategies they have from learning L1 and L2 and gives them the opportunity to learn new ones. Hence, memory vocabulary learning strategies proved to be efficient in vocabulary learning even though not all the strategies are used. And this is what was uncovered by the findings. The most frequently used strategies amongst the ten introduced were only three. The choice may be referred to their age and learning styles.
On what concerns learners’ autonomy and motivation in learning vocabulary, the results showed a significant agreement of the students. Most of them agreed that the use of the strategies helps them become more autonomous in their learning and raises their motivation to learn more. These learners being equipped with the efficient learning strategies gain more self-confidence in them and believe more in their abilities and outcomes in language learning in general and in vocabulary learning in particular. However, it is worthwhile noting that initial motivation is the key to improvement and success. It has been observed on some students of lower motivation to study, to whom the low scores of all the tests is attributed, that they couldn’t remember the studied words even though they have been used in class more than once. In addition, their responses to the use of the strategies, most of their answers ranged between seldom and never (on the Likert-scale) for only six strategies. And as for the effect of the use of the strategies, they responded that the use of memory vocabulary learning strategies helps them raise their motivation and autonomy.

CONCLUSION

Richness of vocabulary remains an inseparable ingredient in success in language learning. To this end, EFL teachers should provide their students with the different vocabulary learning strategies, either discovery or consolidation strategies so that the task of vocabulary learning becomes easier for them. These tools help them cope efficiently with the task. The variety in the introduced strategies satisfies the different learners’ learning styles, abilities and age.

To conclude with, memory vocabulary learning strategies help EFL learners boost their vocabulary learning and widen their vocabulary knowledge. In addition, being equipped with these strategies ensures an independent learning and enhances their autonomy in language learning in general. Both their motivation and autonomy raises their self-confidence giving them more strength to deal with the different tasks of language learning, be it, vocabulary, grammar or any language skill.

REFERENCES


**APPENDICES**

**Appendix A Treatment Material Memory Vocabulary Learning Strategies**

Here is a (selected) list of memory vocabulary learning strategies that helps you memorize and retain the meanings of words.

- **Image word meaning**: I make an image of the word’s meaning in the mind or connect the word with a picture.
• **Associate the word with a personal experience:** for example I relate the word to something similar that happened (to me) (I connect ‘strut’ to a moment when I saw a person who strutted in front of all friends because of his new look but suddenly fell down).

• **Connect the word with its synonym and antonym:** I link, for example, chuckle and snigger as synonyms and subsequent and previous as antonyms.

• **Associate the word with its coordinate(s):** I connect twiddle with thumb as in ‘twiddle your thumb’ or pout as in ‘pout your lips’ and remember the meaning.

• **Group words together to study them:** I group words in relation to the same theme together, for example: stagger, loiter, wander and ramble and study them.

• **Underline initial letter:** I remember the first letter of the word, or better a group of 3 or 4 words together and form an acronym from the first letters, for example, from rake, reel and daisy I form the acronym RED.

• **Use cognate:** I connect the word with its cognate in French, for example, conventional with ‘conventionel’ and autonomy with ‘autonomie’ (but there are some false-cognates or false-friends such as smoking and ‘smoking’).

• **Use physical action:** for example, I learn ‘hop’ with an action of jumping, or smile broadly for ‘grin’.

• **Put the word in a sentence,** for instance, ‘urchin’ as ‘The urchin seemed to be hungry’.

• **Use the keyword method:** I associate the word with a word which is spelt or pronounced similarly in L1 or L2 but not necessarily related in meaning and make a mental image to link the two words, for example when memorizing ‘refrain’ which means stop yourself doing something I may link it to the French word ‘frein’ and form a mental image of stopping doing something.

**Appendix B: Vocabulary Knowledge Scale (VKS)**

Your knowledge about the listed words in the table will be tested. Please, fill it in by ticking the appropriate box according to the grades shown in the following box (the self-report categories).

**Self-report categories**

I. I don’t remember having seen this word before.

II. I have seen this word before, but I don’t know what it means.

III. I have seen this word before, and I think it means (synonym or translation.)

IV. I have seen this word. It means (synonym or translation.).

V. I can use this word in a sentence: (write a sentence.)

(If you do this section, please also do section IV)