Vocabulary Acquisition and Retention Learning
Through Online Vocabulary Lessons

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Abstract

The purposes of this study were 1) to investigate students’ vocabulary acquisition and retention after learning the English vocabulary online lessons; 2) to explore the students’ satisfaction toward the English vocabulary online lessons and 3) to study the relationship between students’ satisfaction towards the English vocabulary online lessons and the students’ vocabulary acquisition and retention. The samples of this study were 30 third-year students studying in the academic year 2012 at Rajamangala University of Technology Srivijaya (RMYTSV), Trang Campus. English vocabulary online lessons, a vocabulary achievement test, and questionnaires on learners’ satisfaction toward the lessons were used as the instruments for collecting data. The statistics for analyzing data were mean (X), standard deviation (S.D.), t-test, and Pearson’s Correlation Coefficient.

The results revealed that after learning the English vocabulary online lessons students’ knowledge of the learned vocabulary increased at a significant level .01. The students’ satisfaction toward learning vocabulary through the English vocabulary online lessons was at high level (X = 4.31) Students reported that they could learn better from the exercises of the English vocabulary online lessons at the highest level (X = 4.57) because they could check the answers and scores immediately after doing the exercises. The students’ satisfaction; however, was not found statistically related to their vocabulary achievement.

Keywords: English Vocabulary Online Lessons, Vocabulary Acquisition and Retention
Background

In ESL Vocabulary knowledge is regarded as basic factor for developing the learners’ skills in listening, speaking, reading and writing (AL-Jarf, 2007). It was also found by Janjula et al. (2010) that EFL learners need good knowledge of vocabulary to be successful in English language learning, and they must be able to use them fluently and appropriately to be efficient language users. This sufficient vocabulary knowledge will result in effective English language learning and use (Al-Jarf, 2007). Vocabulary knowledge is an important component for developing English language skills. Limited vocabulary knowledge hinders both communication and language learning of EFL learners in Thailand (Sawangsri, 2009). Most Thai learners learn English only in classroom and their teachers normally use Thai language as the medium of instruction. Learning of new English vocabulary is mostly done in classroom and more often by remembering or reciting than understanding or using the words (Pinasa, 2010). Moreover, vocabulary learned in classroom is not usually for its own sake. Frequently, vocabulary is learned unintentionally in supporting of listening or reading comprehension or for writing purposes. Vocabulary is not taught or learned intentionally in any class for its own value. This might be because there is not enough class time, or vocabulary is not seen as an important component of the language to be learned by most of the Thai teachers (Janjula, et al., 2010).

At present technology takes an important role in development and expansion of educational opportunity (Kim and Bonk, 2006). Several online media and existing computer technology appear to be the best way to present English vocabulary learning. Online vocabulary lessons are proven to be an effective way to engage the learners in learning several components of word that are needed to be known easily at their fingertip (Ghabanchi and Anbarestani, 2008; Srisulai, 2007). Moreover the online technology can make the lessons and learning activities more attractive. It can offer a larger amount and variety of instant input and contents than normal classroom learning materials and media (Sittironarit, 2008). The online lessons can present, for example the content, questions, still and motion pictures or animations at the same time. The results and feedback of the questions or exercises are also given instantly (Faculty of Education, Naraesuan University, 2009). The English vocabulary online lessons have more and more positive influence on vocabulary development for EFL learners. They have more and easier potentials of use than the traditional vocabulary teaching methods, such as word cards or picture cards. Online technology makes the lesson more attractive to the learners. It provides more comprehensible and meaningful feedback to the
users. The online lesson components that can be learned and accessed at the learners’ convenient time and within their pace also make the learners retain the knowledge of vocabulary for a longer period of time. Seeing, hearing and repeating the word and other attractive or colorful pictures or animation easily created by technology help construct long-term memory of the word (Trengtrairat, et al., 2000). Learners can learn the words better and longer with the help of online and computer technology.

A number of 3000 English head words are required for university students as their baseline vocabulary knowledge for developing other English language skills. Together with the availability and facilities provided by online technology such as the Learning Management System (LMS) provided by Rajamangala University of Technology Srivijaya (RMYTSV) Trang Campus, the research has the intention to help the RMYTSV students to increase their vocabulary knowledge and to verify that the online learning is effective for these students.

Research Questions

1. Will the learners acquire and remember more vocabulary after learning the vocabulary from the vocabulary online lessons?
2. Are the learners satisfied with the vocabulary online lessons and to what extent?
3. Is there any relationship between the learners’ satisfaction on the vocabulary online lessons and their learning achievement?

Scope and Limitations of the research

1. In the present study, the 120 unknown words to the research samples, taken from the textbook for pre-intermediate learners “Read This 2: Fascinating Stories from Content Area” Cambridge University Press, the pre-intermediate book level. Medicines, Food and Nutrition, Animals, Crimes, and Sciences were all the vocabulary themes, were included in the vocabulary online lessons and they are delivered through the Learning Management System (LMS) at Rajamangala University of Technology Srivijaya (RMYTSV) Trang Campus.
2. The sample of the study was 30 third-year students of RMYTSV, Trang Campus registering in the English Reading Course in the first semester of the academic year 2012.

Research Instruments

The instruments for collecting data for the present research were as follow.
1. The pre-and post-vocabulary achievement test

The same test was used as the pre-and post-vocabulary achievement test. This test consists of 40 questions on 40 vocabulary words selected from every third word of the learned words in vocabulary online lessons. The test was intended to test the levels of word recognition and word use. It is divided into 3 sections. Section 1 is the matching type: the word and its part of speech (7 items); the words and its meaning in Thai (6 items); the words and its meaning in English (5 items). Section 2 is the paragraph cloze test type with multiple choices of the word to be filled in the blanks (10 items). Section 3 is the filled–up sentence test type. Words to be filled in the blanks are not given (12 items).

2. The vocabulary retention test.

The same test for pre-and post-test was used as the retention test, but the questions and choices of words in the test were shuffled to prevent recognition effect from the post-test. This retention test was conducted two weeks after the post-test to weigh the retention of learned vocabulary.

3. The satisfaction questionnaire

The satisfaction questionnaire asks for the levels of satisfaction toward the vocabulary online lessons and the lesson components. The questionnaire is the 5-point Likert Scale in which 5 means the strongly agree; 4 means much agree; 3 means averagely agree; 2 means less agree and 1 means least agree. This questionnaire is divided into 5 sections. The first section asked for the learners’ personal information. The second requested about the ways these learners learn new words. The third section asked about the learners’ satisfactory level toward the lesson, while the fourth section asked for their satisfaction level towards different sections of the lesson. Finally, the fifth section was the open-ended questions asking for comments and suggestions for the improvement of the lesson.

4. The English vocabulary online lesson

The English vocabulary online lessons were presented on the RMYTSV’s LMS virtual classroom. It consists of 12 of ten-word lists taken from the reading textbook “Read This 2: Fascinating Stories from Content Area” Cambridge University Press. These words were proved to be unknown in terms of meaning and use of the words to the target learners. Each list consists of 10 words (Figure 1). The learner can click on each word to learn the word, the word part of speech, its meaning in Thai, its meaning in English, the word’s synonym and antonym and word appears in the sentence context is provided to be learned (Figure 2 and Figure 3).
Figure 1 The Word List to be Learned

Figure 2 The Features of the lesson to be Learned

Figure 3 The Word to be Learned in a Sentence Context
Research Methodology

Data Collection

The data were collected in 5 steps as described below.

First, the learners took the pre-vocabulary achievement test of 40 items within one hour. Then, the learners learned vocabulary from the vocabulary online lessons posted on the LMS virtual classroom by themselves spending one hour for one word list of 10 words making 12 hours altogether. In the third step, the learners took the post-vocabulary achievement test of 40 test items within one hour and answered the questionnaire for 20 minutes. Two weeks after the post-test, the learners took the retention vocabulary achievement test of 40 test items within one hour to weigh their retention on the knowledge on the learned vocabulary. Finally, all the collected data were calculated and analyzed for means and standard deviations of the achievement test, and finally, the Pearson’s Correlation Coefficient was performed to investigate the correlation between the learners’ satisfaction level and their vocabulary achievement scores.

Findings

Findings are presented in response to the research questions as follow.

To answer the research question number 1 asking if the learners acquire and to what extent did they remember the vocabulary after learning the vocabulary from the vocabulary online lessons, it was found that learners could acquire more vocabulary after they learned the vocabulary online lesson at a significant level 0.01 as shown in Table 1.

Table 1: The Comparison of Vocabulary Pre- and Post-test Scores

<table>
<thead>
<tr>
<th>Vocabulary Test Score</th>
<th>Total Marks</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-value</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>40</td>
<td>17.27</td>
<td>5.304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test</td>
<td>40</td>
<td>25.03</td>
<td>4.853</td>
<td>10.398**</td>
<td>.000</td>
</tr>
</tbody>
</table>

Information presented in Table 1 shows that the mean scores of the post-test (X̄ =25.03; S.D. =4.853) was significantly higher than that of the pre-test (X̄ =17.27; S.D. =5.304). This means that after learning new words in the vocabulary online lessons the learners’ recognition and use of the learned vocabulary was higher at a statistical level (.01). The vocabulary online lessons used as the experimental instruments in this study were proved effective for improving the learners’ knowledge of newly learned vocabulary.
Two weeks after the post-test, the learners were given the vocabulary retention test within one hour. The post-test score and the retention test score were compared using the 2-tailed t-test. Results show that there was a significant difference of .01 between the scores of the post-test and that of the retention test as shown in Table 2.

Table 2: The Comparison of Vocabulary Post-Test and Retention-test Scores

<table>
<thead>
<tr>
<th>Vocabulary Test Score</th>
<th>Total Marks</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-value</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>40</td>
<td>25.03</td>
<td>4.853</td>
<td>-7.032</td>
<td>.000</td>
</tr>
<tr>
<td>Retention test</td>
<td>40</td>
<td>21.57</td>
<td>5.029</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information presented in Table 2 shows that the mean scores of the post-test (X̄ =25.03; S.D. =4.853) was significantly higher than that of the retention-test (X̄ =21.57; S.D. =5.029). This means that two weeks after learning new words in the vocabulary online lessons the learners’ recognition and use of the learned vocabulary was lower than that of the immediate post-test score at a statistical level (.01). The retention test scores, however, were still significantly higher than the scores they gained before learning the vocabulary online lessons. This result further strengthens the effectiveness of the vocabulary online lessons for improving the learners’ knowledge of newly learned vocabulary.

To answer the research question number 2 investigating the learners’ levels of satisfaction on the vocabulary online lessons, it was found that learners were satisfied with the lessons at a high level (X =4.31; S.D. =.393) as shown in Table 3.

Table 3  Learners’ Satisfaction toward the Vocabulary Online Lessons

<table>
<thead>
<tr>
<th>Features of the lesson</th>
<th>Mean</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The lesson structure is simple to follow</td>
<td>4.20</td>
<td>.761</td>
<td>High</td>
</tr>
<tr>
<td>2. The lesson design is interesting and supports English vocabulary learning</td>
<td>4.43</td>
<td>.679</td>
<td>High</td>
</tr>
<tr>
<td>3. The lesson features (pictures, letters and sounds) are attractive and support learning.</td>
<td>4.47</td>
<td>.571</td>
<td>High</td>
</tr>
<tr>
<td>4. The lesson flow is in a good order and easy to follow.</td>
<td>4.07</td>
<td>.691</td>
<td>High</td>
</tr>
<tr>
<td>5. Instructions and explanation in the lesson are helpful and easy to follow and understand</td>
<td>3.93</td>
<td>1.081</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
6. I can review the lesson (vocabulary) back and forth several times as needed.  
<table>
<thead>
<tr>
<th>Mean</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.50</td>
<td>.820</td>
<td>Highest</td>
</tr>
</tbody>
</table>

7. I can learn and do the exercises and get the results or feedbacks right after finishing it.  
<table>
<thead>
<tr>
<th>Mean</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.57</td>
<td>.568</td>
<td>Highest</td>
</tr>
</tbody>
</table>

| Total | 4.31 | .393 | High |

Information presented in Table 3 shows that in total the learners found that vocabulary online lesson could facilitate their learning at a high level (X̄ =4.31; S.D. =.395). The two separate characteristics of the lesson the learners favored at the highest level were the exercises that provided them the opportunity to review the learned words and got feedback and scores right away after they finished the exercises (X̄ =4.57; S.D. =.568), followed by the lesson element that allowed them to go back and forth to review the word features to be learned of the word (X̄ =4.50; S.D. =.820). Other lesson characteristics found to be satisfactory to the learners at a high level included the lesson characteristics: ease of accessibility, lesson design, pleasant appearance of the words and their features to be learned, sequences of the lesson presentation. However, the instructions and explanations was the only feature of the lesson that was rated at a moderate level (X̄ =3.93; S.D. =1.081).

The separate features of the word presentation was also investigated and found satisfactorily to the learners at a high level (X̄ =4.31; S.D. =.511) as is shown in Table 4

Table 4 Learners’ Satisfaction toward Word Presentation of Vocabulary Online Lessons

<table>
<thead>
<tr>
<th>Features of the lesson to support learning of word knowledge</th>
<th>Mean</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Look of word (form, appearance, color and location)</td>
<td>4.33</td>
<td>.661</td>
<td>High</td>
</tr>
<tr>
<td>2. Word part of speech</td>
<td>4.13</td>
<td>.629</td>
<td>High</td>
</tr>
<tr>
<td>3. Word pronunciation</td>
<td>4.37</td>
<td>.765</td>
<td>High</td>
</tr>
<tr>
<td>4. Word meaning in Thai</td>
<td>4.23</td>
<td>.679</td>
<td>High</td>
</tr>
<tr>
<td>5. Word meaning/definition in English</td>
<td>4.27</td>
<td>.521</td>
<td>High</td>
</tr>
</tbody>
</table>
The findings presented in Table 4 show that in total the presentation of word features in the vocabulary online lessons was attractive to the learners at a high level. In separated learning features, the learners were in favored of the exercise part at the highest level (X̄ =4.57; S.D. =.504) and in the matching exercise between the word and its meaning, in particular (X̄ =4.53; S.D. =.629).

Moreover, the information obtained from the open-ended questions in the questionnaires revealed the comments and suggestions toward the English vocabulary online lessons as follows.

1. There should be a larger number of words to be learned in the lesson (36.7%).
2. There should be a vocabulary lesson for specific content areas, such as areas as agriculture and information technology (33.3%).
3. The presentation and design of words should have more variety and more colorful and attractive designs, and other attraction such as animation or cartoons (30%).

The learners also suggested that there should be this kind of vocabulary online learning lesson for future use and that the online learning lessons gave them an excellent opportunity to learn new words and develop their vocabulary knowledge. They also appraised that the English vocabulary online lessons were easy to learn and access at their convenient time. Most importantly, they can learn it by themselves. This showed that the learners are better aware of their learning autonomy which is a good sign for their future learning, not only in learning new English words but also in other areas of their learning.

To answer the research question number 3 examining the relationship between the learners’ satisfaction levels on the English vocabulary online lessons and their vocabulary
achievement after learning the lessons, it was found that there was no statistical coefficient correlation between the afore motioned variables as shown in Table 5.

Table 5  The Coefficient Correlation between Learners’ Satisfaction on Vocabulary Online Lessons and their Achievement Scores

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>r-value</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learners’ satisfaction toward the English Vocabulary Online Lessons</td>
<td>-0.19</td>
<td>0.15</td>
</tr>
<tr>
<td>2. Learners’ satisfaction toward the presentation of word features in the lessons</td>
<td>-0.13</td>
<td>0.25</td>
</tr>
</tbody>
</table>

The Pearson Correlation Coefficient conducted to investigate the relationship between the learners’ satisfaction levels and their scores of the vocabulary post test as presented in Table 5 shows that neither the learners’ satisfactory levels towards English vocabulary online lessons (r= -.019) nor their satisfactory level on the presentation of word features in the lessons (r= -.013) had a statistical influence on their acquisition of the newly leaned words.

Discussions

Results obtained from this research suggested three interesting observations as follows.

1. The results showing that the learners’ knowledge of vocabulary learned from the English vocabulary online lessons increased significantly at the 0.01 level. This confirms the usefulness of the English vocabulary online lessons and the learning procedure through the lessons. Although the scores of the retention test which was conducted two weeks after the learning sessions decreased significantly from that of the immediate post–test, this retention score was still significantly higher than the learners’ scores before they had learned from the lessons. This showed that even in the longer period of time the learners could still maintain the knowledge of the vocabulary they have learned effectively. It was apparent from the learners’ level of satisfaction toward the lessons stating that the vocabulary online lessons can present all components of word knowledge such as word spelling, word meaning in Thai and English, word part of speech, the synonym and antonym and even the word used in the sentence context. Learners can click a mouse to learn these word components as many times as they want with the online technology. This finding was supported by the study of Talhikorn, et al. (2001) who maintained that vocabulary lessons can be best learned if they are made easy to learn and access online for the learners can learn them at their own
convenience and they can get back to learn or repeat the lesson as often as they want. In addition, Al-Jarf (2007) suggested that learning environment with technology helps motivate and enhance students’ learning and acquisition of English vocabulary. This can explain why learners can also better retain the knowledge of the learned words in the longer time.

2. Results from the survey of the learners’ satisfaction toward the lessons also revealed that they appreciated the lesson at a high level and the exercise sections, in particular, because they could get the feedback and the credit they got at real time and they could try it again as many times as they wanted to repeat the exercises. It is notable that the learners were happier to learn and repeat the exercises than the presentation of the word components to be learned. Piriyasurawong (1999) suggested in his study that online vocabulary lessons should contain all those word components and technology that can attract learners’ attention to the word to be learned so that they are not bored. In this study the learners suggested a larger number of words to be learned in the lessons and they also requested other specific area vocabulary online lessons for future use. This shows that they really appraise the lessons and want to learn more.

3. The insignificant coefficient correlation between the learners’ satisfaction on the English vocabulary online lessons and their post-test achievement scores maintained that there was no direct relationship between the learners’ satisfaction on the learners and their vocabulary achievement after learning the lessons. Nevertheless, the level of high satisfaction of the learners toward the lessons has the high potential for the improvement of the development of their vocabulary knowledge. The learners’ request for more words and variety of words to be learned in the open-ended questions part of the questionnaire also supported the possibility for better learning results if the lessons can be accessed and learned in a longer period.

Furthermore the learners’ appraisal to the vocabulary online lesson at the high and highest levels proved that they will be happy to learn from the online lesson in their own time if it is available for them.

Recommendations

1. English online lessons should be constructed to help improve other English language skills of listening, speaking, reading and writing to motivate autonomous learning among students in Rajamangala University of Technology Srivijaya (RMYTSV), Trang campus. Most of the students are not very efficient in English language as shown in their grade they had in English courses.
2. The present study was designed as a one-group pre and post-test experimental study. A two-group experimental and controlled group design should be done to prove if the results are similar.

3. Studies should be done to compare vocabulary learning outcome from different types of lessons such as the online vocabulary lesson versus other types of vocabulary lessons.

4. The retention test should be delayed for a longer period than two weeks to prove effectiveness of the learning lessons and should be done several times or repeatedly to guarantee effectiveness of the lessons.

5. Studies should be done to compare the effectiveness of vocabulary online lessons for different levels of learners to prove if this type of online vocabulary lessons are suitable or most effective for what levels or what age of learners.

References


