

Utilizing Moodle Glossaries and Quizzes For Content Course Vocabulary Acquisition

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Abstract

The use of computer technology in language teaching as a method to increase student's vocabulary acquisition is not a new trend. In fact, it has increased in recent years at many institutions of higher learning throughout Japan. The use of commercially available computer software programs that propose to enhance vocabulary acquisition has never been greater. While research shows these software programs have a positive effect overall, they do not always directly address the needs of vocabulary for content courses or courses designated as "English for Specific Purposes." Most of the vocabulary taught via computer is done arbitrarily and, more often than not, is unconnected to in-class texts and/or lectures. What is needed are materials designed to complement the vocabulary from the texts or lectures so that it can be studied and tested within the context of the course. Moodle, an e-Learning management system, possesses the tools needed to do just this. By using the Moodle glossary and quiz modules for vocabulary study and testing, educators can help students to increase their English vocabulary and long-term retention.

Introduction

Vocabulary learning is often done through reading at Japanese universities. Students usually read and translate a text, answer some questions and hand in their papers. "In terms of pedagogy, if vocabulary is addressed at all in the ESL classroom, it is has traditionally been relegated to the role of incidental learning." (Browne, C. 2002). Many of the low-frequency words inherent in reading materials for content courses and English for specific purposes are a barrier to comprehension. Therefore, it was decided to systematically incorporate the vocabulary from the text into the course using Moodle glossaries and quizzes in an effort to make a bigger impact on student learning.

A Brief Description of Moodle

"Moodle is a Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). It is a free web application that educators can use to create effective online learning sites" (Moodle: *see Online References*). It is part of the e-Learning program in the department at Sapporo University. I have been using Moodle to create Blended Learning courses for many years now.

"The Moodle Glossary Module allows participants to create and maintain a list of definitions, like a dictionary" (Moodle Glossary: *see Online References*). A glossary can be collaborative (students and teachers) or entries can be made only by the teacher. Glossaries can be created for individual courses (secondary glossary) or as site-wide (global) glossaries

that work in all courses.

Purpose

The purpose of this study is to see how Moodle glossaries and quizzes can be effectively used to enhance students' acquisition of the vocabulary they need for content courses or for courses of English for specific purposes through repeated study and quizzing. The idea of repeating vocabulary often and spacing vocabulary quizzes at intervals comes from investigating the work and research done by Lexxica and their Word Engine program. "Research has shown that students learn words best and retain them longer when vocabulary is repeated often over a certain period of time with gradually longer intervals between testing" (Lexxica: *see Online References*). Although Moodle cannot replicate the type of interactivity programs like Lexxica or Quia have, (Quia is a program that allows educators to create learning activities for students: *see Online References*), but it can be set to mimic the basic idea of quizzing frequently and spacing quizzes at regular intervals so that students are exposed repeatedly and frequently to the same vocabulary.

Background

The course, An Introduction to Business English, consisted of 102 English majors at Sapporo University in Sapporo, Japan and is offered to all students from first to fourth year during the second semester. There were 54 first-year students, 19 second-year students, 24 third-year students and five fourth-year students. Classes were held for 90 minutes once a week for one semester (15 weeks). The textbook used was

Current Topics from the Nikkei Weekly¹ which consists of 12 Units of news articles that have been adapted for Japanese learners.

Procedure

Three Moodle glossaries were created for the course (Glossaries A, B and C) with each glossary containing a total of 137 vocabulary words from units 1 to 9 of the text. Glossary A (Units 1 to 3) contained 52 words, Glossary B (Units 4 to 6) contained 35 words, and Glossary C (Units 7 to 9) contained 50 words. The vocabulary lists of 60 to 70 words were made by the teacher each week from words appearing in each unit of the book and students were instructed to put them into the glossaries themselves after class. Each student was assigned to enter only a few English words with their Japanese translations from the lists each week. All of the students entered different words into the glossaries. Handouts were made showing students how to do this (fig. 1).

On the fourth week a quiz was set up containing all of the words from Glossary A and students were instructed to take the first attempt at the quiz before the next class. The quiz was set to repeat once every seven days for five weeks for a total of five attempts. The scores of the five attempts were averaged together and were set with a 15-minute time limit (fig. 2). The quizzes appear in a secure window with the questions and the answers within questions set at random so that no two students will see the same screen if they are taking a quiz next to each other in the computer room at the university. The quiz type used was matching of English with Japanese translations, and no more than 10 words appear in

¹ Kobayashi, Kaoru, et al., Current Topics from the Nikkei Weekly. Tokyo : Cengage Learning, 2008

one block (fig. 3). The time limit for the third and fourth quiz attempt was shortened to 12 minutes, and it was shortened again to 10 minutes for the fifth and final time. The change in time limits were imposed for two reasons: 1) it would keep students from trying to cheat by looking the words up in a dictionary or using a printout of the glossary list, and 2) the time it was taking students to complete the quizzes got progressively shorter.

Students could see their own scores and results, but not other students' results, after they had completed each attempt so that they could study the words they missed before taking the quiz again. The scores of all attempts were averaged together for the final grade for each individual glossary. A score of zero for every missing attempt was averaged in with the other scores.

This process was repeated for each glossary and glossary quiz. The final scores of all three glossaries were then averaged together for 25 percent of the grade. At the end of the semester there was a final test with a 12-minute time limit of 100 words taken randomly from all three glossaries. This final test was also 25 percent of the grade. The other 50 percent of the grade was based on class participation and attendance.

Results

The results indicate that repeated and systematic testing of vocabulary did improve student scores. Some students showed high marks consistently, with others occasionally scoring lower between the first and last glossary quizzes. One reason for this may be that they had not learned the vocabulary well enough yet. Another reason is that the decrease in the time to take the later quizzes may have been a factor. This result was

not totally unexpected as it was assumed that students would not learn every word missed from the previous quiz, and that it would take more than a few attempts for them to internalize the words. The final vocabulary test scores were high, with 25 students getting a perfect score of 100, 34 students scoring in the 90s, 15 students scoring in the 80s, 12 students scoring in the 70s, 4 students scoring in the 60s, and 5 students scoring in the 50s. Only 5 students scored under 50 on the final glossary test. There were 2 students who either dropped the course or stopped coming to class, and 5 students who never or rarely took the weekly glossary quizzes but who did take the final vocabulary test.

It should be noted that while most students got passing scores for the final vocabulary test, many of them did not take each glossary quiz 5 times as directed. For Glossary A, 98 students made a total of 419 attempts at the quiz, for Glossary B, 101 students made a total of 438 attempts, for Glossary C, 91 students made a total of 319 attempts at the quiz, and 100 students took the final quiz. (If all 102 students had made all five attempts there would have been a total of 510 attempts for each glossary quiz). About three-fourths of all students completed all five glossary quizzes for each quiz, and about one-fourth of the students consistently attempted fewer quizzes than the other students. A few of students only made one attempt for each quiz, with others doing two, three or four quizzes. This affected not only their final grades, but their scores tended to be lower for the final vocabulary test than the students who took all five quizzes for each glossary.

Discussion

It was thought that having students enter the vocabulary words into the glossaries would save a lot of time and energy. In reality, it did not work as hoped. The vocabulary lists contained about 70 words for every three units. Some students did the work consistently and on time and others did not do it at all. Glossaries A and C had 50 and 52 words and meanings entered respectively, and Glossary B contained only 35 words. Another problem was that many students were not choosing any category for the words they entered, which forced the teacher to do it. Given these problems, it would be better to use the same glossaries for next year and to enter the missing words and meanings before class begins. Creating the glossaries beforehand would allow for the Glossary A quiz to begin the first week of class and also allow time for Glossary D (Units 10 to 12) and its related quiz to be added to the course. As most students did well on the final vocabulary test, more words from the text could be added to each glossary. One addition that could be made would be to create games and activities using Quia, which was mentioned briefly earlier, so that students could practice and learn the vocabulary in an interactive way rather than just studying word lists. The only possible drawback in using Quia is that students would have to leave the Moodle site to log in, and the instructor would have to spend a great amount of time creating the games and activities needed for all of the words contained in each glossary.

Conclusion

The stated purpose of this study — to see if Moodle glossaries and quizzes can be effectively used to enhance students' vocabulary acquisition — has proven true to the extent that those students who were engaged showed positive results. Those students who did not fully participate in the weekly glossary quizzes had lower scores and some of them did not meet the minimum standard needed to pass the course. The overall results show that the majority of students did perform well on the final vocabulary test at the end of the 15-week course. The results are encouraging and the use of glossaries and spaced vocabulary quizzes will continue to be used and refined.

References

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Online References

- Lexxica Word Engine. <<http://www.wordengine.jp/>>
- Lexxica Word Engine. How it Works. <<http://www.wordengine.jp/vflash>>
- Moodle Docs. <<http://docs.moodle.org/en/Glossaries/>>
- Moodle Homepage. <<http://moodle.org/>>

Glossary Settings

Concept: **Keyword(s):**

Categories:

Definition:
Path: body > p

Formatting: HTML format

Attachment:
(optional) Max size: 97.7MB

Fig. 1: Enter the English word in the "Concept" field, choose the "Category" the word goes in, and then enter the Japanese meaning in the "Definition" field. Finally, click one "Save changes."

Quiz Settings

Name: Glossary A Quiz

Introduction: Trebuchet 1 (8 pt)

About the HTML editor

Glossary A Quiz

Path: body

Open the quiz: 14 October 2009 - 14 30

Close the quiz: 25 November 2009 - 13 00

Time limit: 15 minutes

Questions per page: Unlimited

Shuffle questions: Yes

Shuffle within questions: Yes

Attempts allowed: 5 attempts

Each attempt builds on the last: No

Grading method: Average grade

Adaptive mode: No

Apply penalties: No

Decimal digits in grades: 2

Students may review: Responses Scores Feedback Answers

Immediately after the attempt:

Later, while the quiz is still open:

After the quiz is closed:

Time delay between first and second attempt: 7 days

Time delay between later attempts: 7 days

Show quiz in a "secure" window: Yes

Require password:

Require network address:

Group mode: No groups

Visible to students: Show

Fig. 2: Set the dates and times the quiz will open and close. Next, set a time limit if desired. Choose "yes" if you want to shuffle questions and answers within questions. Choose the number of attempts allowed (up to six). Choose the grading method and student review options. Finally, choose a time delay between quiz attempts.

Quiz Matching Question

Preview Matching 2

Quiz: Dictionary A Test: Units 1 - 3

1 Matching

Marks:
10

wholesaler	Choose...
sagging	Choose...
personnel	Choose...
northernmost	Choose...
take advantage of	Choose...
yearn	Choose...
untapped	Choose...
annual	Choose...
regime	Choose...
obscurity	Choose...

The drop-down menu for the first item is open, showing the following options:

- Choose...
- Choose...
- 体制
- 利用されていない、手つかずの
- 切替する
- 全職員、総人数
- 停滞する
- あいま
- ～を活用する
- 最北端の
- 年一回の
- 卸売業者

Fig. 3. Students match English and Japanese words from the drop-down menu.