The Effect of Using MoodleReader on Incidental Vocabulary Acquisition of Iranian EFL Learners

Sepideh Alavi and Afsaneh Keyvanshekouh
Shiraz University, Iran
salavi@rose.shirazu.ac.ir
afsoon_ksh@yahoo.com


This study focused on using Moodlereader to promote extensive reading (ER) in an Iranian EFL context, emphasizing its effect on students' incidental vocabulary acquisition. Sixty-four Shiraz University sophomores enrolled in two intact reading classes were assigned to an experimental and a control group. The experimental group used Moodlereader for their ER program, while the control group followed the traditional ER curriculum. Both groups were given Production and Recognition Vocabulary Levels Tests (Laufer & Nation, 1999; Nation & Beglar, 2007) at the beginning and at the end of the semester as pre- and post-tests to check the students' vocabulary level before and after the experiment. T-tests were run to compare the performances of the two groups. The results showed that using Moodlereader improved students' incidental vocabulary acquisition.

Several scholars have made a distinction between the two prominent methods of acquiring new vocabulary, namely intentional (explicit) and incidental (implicit) learning. Ellis (1995) for example, states that "intentional learning requires focal attention to be placed deliberately on the linguistic code (i.e., on form or form-meaning connections)", while "incidental learning requires attention to be placed on meaning (i.e., message content) but allows peripheral attention to be directed at form" (p. 14). He further goes on to mention that implicit vocabulary learning is the unconscious acquisition of new words due to repeated exposure. Such process of language acquisition is similar to incidental learning, during which, according to Chen (2009), the learners are not aware of the learning purpose before completing a given learning task. Rather, they are given an unexpected test based on the goal once the task is completed.

Most language teachers agree that second/foreign language learners would have to acquire their first few thousand words intentionally since they lack enough proficiency in the target language to just pick up the meaning of the new words. However, according to Shokouhi (2009), most vocabulary is acquired incidentally later on in the learning process since it occurs as a result of other activities—especially those related to reading, intensive or extensive. This was also emphasized by Nation (1997) who maintained that by involving the learners in listening or reading comprehension tasks, teachers can help promote their students' incidental vocabulary learning. According to Waring and Takaki (2003) and Brown, Waring and Donekaewbua (2008), a word has to be met ten to fifteen times or more, to be learned incidentally by reading graded material, and even so, the retention might not last longer than 3 months. To learn new words, what is needed is "... repeated and consistent exposure to graded readers" (Waring & Takaki, 2003, p. 154).

So far, several ER-promoting programs have been suggested and used, two of which having been more successful than others: the Accelerated Reader (see Paul, VanderZee, Rue, & Swanson, 1996) and MoodleReader (see Robb, 2005). The Accelerated Reader (AR) is a reading program that uses computerized quizzes to track students' reading activities and provide detailed reports on their progress, aiming at encouraging more reading gains. Although the AR was reported to be successful in several academic contexts, it was also found to be problematic in certain functions such as its limited capacity for accommodating teacher-made quizzes, lack of question randomization, lack of an automatic student promoting system, need for a controlled testing session to prevent cheating, and lack of a feature to prevent last-minute cramming (Robb, 2008).

The other ER program, MoodleReader, created by Robb (see 2005), aims at improving the problems of AR and adds other useful functions. While sharing some of the main features of the AR, MoodleReader...
enables teachers to add as many quizzes to their courses as they wish and allows students to move to higher reading levels after reading a certain number of books at their current level. In addition, testing is convenient, questions are completely randomized, and last-minute cramming is not possible because of a forced time delay feature.

The Present Study
The purpose of the present study was to use MoodleReader as a tool for promoting ER in an Iranian EFL university context, with special emphasis on its effect on students’ incidental vocabulary acquisition. As such, the study intended to answer this question: How would MoodleReader, (newly introduced in the Department of Foreign Language and Linguistics of Shiraz University, Iran) affect incidental vocabulary acquisition of Iranian EFL students?

Method
The participants of this study were 38 male and female sophomores majoring in English Literature at Shiraz University, Iran, randomly assigned to experimental (n = 20) and control (n = 18) groups. Before the experiment, both groups were given Nation and Beglar’s (2007) Production and Laufer and Nation’s (1999) Recognition Vocabulary Levels Tests. While the intensive reading classroom activities and textbook were the same for both groups, Readers’ Choice, 5th Edition (Silberstein, Dobson, & Clarke, 2008), a MoodleReader course was created to promote ER for the experimental group, whose members were required to enroll in and take at least 12 quizzes in a period of 3.5 months according to their language level, availability of book title, and personal choice of genre. Completion of the 12-book MoodleReader program carried 30% of their final grade. The control group, on the other hand, was required to follow the traditional ER activities of the department. At the beginning of the term, four graded readers were selected by the instructor and assigned to the students to read as their ER material. The titles and level of these books were the same for all the students and no choice whatsoever was allowed. Students were given fixed dates for quizzes on these books with a 20-25 day interval between each, the results of which formed 30% of their final grade. These quizzes consisted of 30 questions on the general plot of the story with Multiple-choice, who-said, True/False and fill-in-the-blank item types. Quizzes were paper-based and therefore not randomized, so all students answered the same questions. At the end of the semester, students from both groups were given the two Production and Recognition Vocabulary Levels tests again to see whether using the Moodlereader had resulted in any significant difference between the two groups in terms of their vocabulary knowledge.

Results and Discussion
In order to compare the means of the vocabulary recognition pretests and posttests as well as the vocabulary production pretests and posttests of the experimental and control groups, four independent t-tests were run. The results showed that for both pretests, the differences between the means of the two groups were not significant, indicating that the two groups’ levels of vocabulary recognition and production were similar at the beginning of the experiment. However, the results of the posttests indicate that the means obtained by the students in the experimental group on the recognition and production tests were significantly higher than those of the control group, $t(36) = 2.49$ for recognition and $t(36) = 5.37$ for production ($p < 0.05$). These findings suggest the effectiveness of the new ER program, carried out through MoodleReader as a useful tool for improving the students’ incidental acquisition of vocabulary, is in line with those of Day, Omura, and Hiramatsu (1991), and Dupuy and Krashen (1993) who found significant improvements in student vocabulary gains after implementing ER programs in their contexts, even though the amount of exposure for the participants in their studies to new words was much smaller as compared to the present work; in the Day, Omura, and Hiramatsu study, students were exposed to 1032 words, and in Dupuy and Krashen, to only 15 pages of text, whereas the students in the present study were to read at least 150,000 words for the semester.

In order to see if each group improved their vocabulary knowledge throughout the experiment irrespective of the ER program they participated in, four matched t-tests were run. Table 1 presents the results.
### Table 1. Results of t-test s for the difference between the pretests and posttests of recognition and production for each group.

<table>
<thead>
<tr>
<th>Groups</th>
<th>M</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
<th>Effect size</th>
</tr>
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<td>0.00</td>
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</table>

As indicated in Table 1, the experimental group showed significant improvement in their performances on both recognition and production vocabulary tests, indicating that they benefited from the ER program using MoodleReader to acquire new words. Interestingly, the control group, too, showed improvement in the scores on the vocabulary production test, implying that the traditional ER programs also contributed to vocabulary acquisition, though not as much as the MoodleReader program. Moreover, in the intensive reading program, which utilizes a rich selection of vocabulary in the reading passages, vocabulary and reading strategies are learnt intentionally. As such, the completion of the intensive reading course could have been another source for learning and using new words during the course of instruction. Such findings are also supported by Paribakht and Wesche (cited in Coady & Huckin, 1997), Zimmerman (1997) and Laufer (2006), who maintained that vocabulary instruction can help produce long-term significant results in vocabulary gains of ESL students.

However, as the results show, the experimental group had better gains in vocabulary. In addition, the effect size values calculated for the gains in recognition and production vocabulary, presented in Table 1, indicate that the magnitude of difference between the pretests and posttests of productive vocabulary for the control group is 0.4, which is a moderate effect size, while that of the experimental group is 0.85, which is a large effect size. This indicates that the MoodleReader program was more effective than the traditional method and contributed more to vocabulary acquisition.

#### Limitations of the Study

This study has not been without its limitations. First, the number of students in each group was too small, which limits the generalizability of the results. Second, several variables which might have contributed to the findings and results of the present study, such as book length, level, genre and choice of title, and time interval between tests were not accounted for the control group. Finally, other factors and elements related to the language learning context (age, sex, language background, etc.) which could have had a potential effect on the outcomes of this study were not controlled. It is suggested that these factors be considered in future replications of the present study.

#### Conclusion

The findings of the study are significant in that they provide EFL teachers with information regarding the relationship between students’ exposure to large quantities of reading material together with MoodleReader quizzes and the extent to which vocabulary items are learnt incidentally during such an extensive reading program. The results can also encourage the classroom teacher to create an English language learning context outside the class for students to participate in at their own pace, level, and interest. Once the logistics of creating a small library of graded readers are dealt with, using MoodleReader for an extensive reading program can create such a context which is both easy to administer and monitor across large groups of students.
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