

English Learners (ELs) and Content Vocabulary

Instructor led, spaced retrieval practice for mastery of content vocabulary

Diane Jacobson, University of Wisconsin-River Falls

Introduction

ELs are in content classes

73% of surveyed universities reported having graduates who had participated in English as a Second Language (ESL) programs, with an average of 2.3% of their graduates having participated in ESL programs to some extent (Haynie 2015)

ELs are not prepared for large amounts of content vocabulary

ESL reading textbooks often do not contain the level of academic vocabulary they will need in introductory university courses (Miller 2011).

Almost half of adult language learners studied had no system for studying and learning vocabulary (Sanaoui 1995)

Students need five to sixteen interactions with a new word in order to learn it adequately (Nation 1990)

Instructors can help!

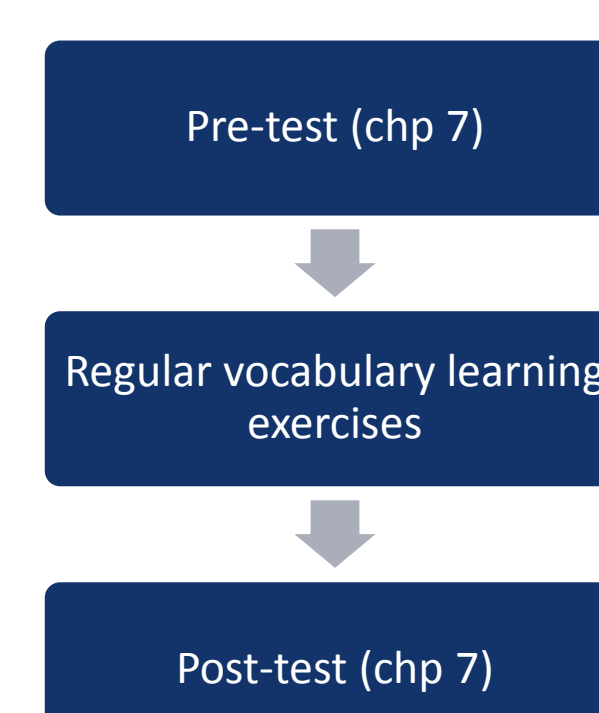
Spaced retrieval has been shown to improve student learning when the practice is done in the classroom (Brown, Roediger, and McDaniel 2014).

Methods

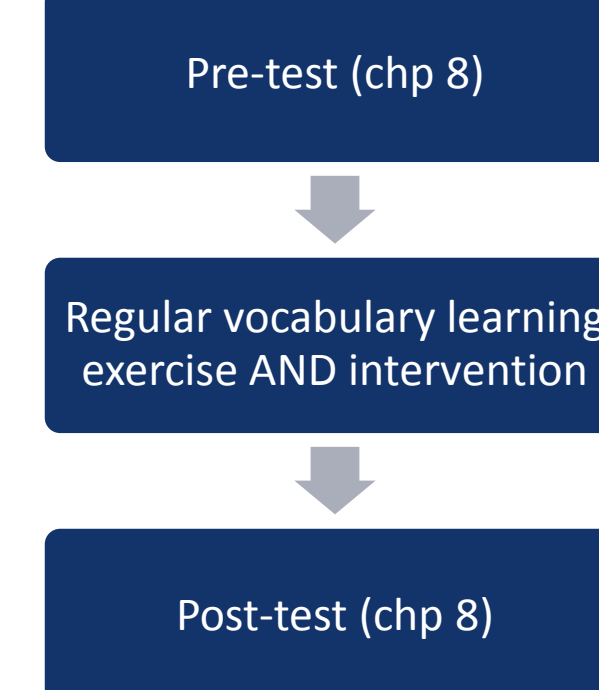
Subjects

15 freshman, non-native speakers of English concurrently enrolled in an ESL and introductory Psychology course, learning 30 – 50 new Psychology-related vocabulary words each week.

Week one



Week two



One Month later – Repeat with Chapters 14 and 15

Intervention – instructor led, spaced retrieval

For 10 minutes during his Psychology test, Dave felt intense dread, chest pain, and choking. He thought he was having a heart attack, but he might have experienced a _____.

- Phobia
- Generalized anxiety disorder
- **Panic attack**

Cognitive psychologists say that testing ourselves is a better way to study than re-reading our notes. This improved memory after retrieving is known as _____.

Testing effect

For the first five minutes of ESL class each day, students quizzed themselves with questions posted on a PowerPoint presentation created by the instructor. Questions were a combination of memorization of definitions or application of ideas, and answers were in the form of multiple choice or fill-in-the-blank. The PowerPoint slides were timed to show the answers after 6 – 12 seconds.

Results

Quantitative Results

Round 1

	Mean score	difference	T value	p
7 pre-test No INT	22	48.7	(14) .094	.93
7 post-test No INT	70.67			
8 pre-test INT	14.67	48.2		
8 post-test INT	62.87			

Round 2

	Mean score	difference	T value	p
14 pre-test No INT	28	31	(14) 4.29	.0002
14 post-test No INT	59.33			
15 pre-test INT	37.86	42.85		
15 post-test INT	80.71			

Qualitative Results 13 student survey responses

- 13 students (100%) agreed or strongly agreed that the intervention helped them memorize the vocabulary words
- 9 of 13 students (69%) agreed or strongly agreed that the intervention helped them understand the vocabulary words

Student comments:

“It was helpful because it help refresh our brain back to remembering the vocab.”

“... Seeing the answer if I got it wrong made me think I had to work on that word more.”

Conclusion

Instructor-led, spaced retrieval for five minutes at the beginning of class shows potential for helping language learners memorize and understand large amounts of content vocabulary.

Implications

Instructors of introductory classes that require memorization and understanding of large amounts of vocabulary words may be able to improve their language learners’ performance by using instructor-led, spaced retrieval at the beginning of class to warm up or at the end of class to wrap up.

Additionally, more research needs to be done to see if this technique benefits native English speaking students in introductory courses.

References

- Brown, P. C., Roediger, H. L., & McDaniel, M. A. (2014). Make it stick: The science of successful learning. Cambridge, MA: Harvard University Press.
- Haynie, D. (July 14, 2015). Colleges with the Highest Percentages of ESL students. U.S. News. <https://www.usnews.com/education/best-colleges/the-short-list-college/articles/2015/07/14/colleges-with-the-highest-percentage-of-esl-students>
- Miller, D. (15 January 2011). ESL reading textbooks vs. university textbooks: Are we giving our students the input they may need? Journal of English for Academic Purposes. Vol. 10, pp 32-46.
- Nation, I.S.P. (1990). Teaching and Learning Vocabulary. Newbury House Publishers, New York.
- Sanaoui, R. (Spring, 1995) Adult Learners’ Approaches to Learning Vocabulary in Second Languages. The Modern Language Journal, Vol. 79.1, pp. 15-28.

Acknowledgements

Thank you to the **UWRF Provost’s Office** for funding this research, **OPID** and the **Wisconsin Teaching Fellows and Scholars** for the professional development, and **Dr. Cyndi Kernahan** for data analysis and feedback on my project.

UNIVERSITY OF
WISCONSIN

River Falls