



Deseret Language and Linguistic Society Symposium

Volume 23 | Issue 1

Article 4

4-1-1997

Dictionary Use and Learning French Vocabulary While Reading: A Comparison of On-line and Traditional Print Documentaries

Melanie Free

Follow this and additional works at: <https://scholarsarchive.byu.edu/dlls>

BYU ScholarsArchive Citation

Free, Melanie (1997) "Dictionary Use and Learning French Vocabulary While Reading: A Comparison of On-line and Traditional Print Documentaries," *Deseret Language and Linguistic Society Symposium*: Vol. 23 : Iss. 1 , Article 4.

Available at: <https://scholarsarchive.byu.edu/dlls/vol23/iss1/4>

This Article is brought to you for free and open access by the Journals at BYU ScholarsArchive. It has been accepted for inclusion in Deseret Language and Linguistic Society Symposium by an authorized editor of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

Dictionary Use and Learning French Vocabulary While Reading: A Comparison of On-line and Traditional Print Dictionaries

Melanie Free

Brigham Young University

Technological developments now allow readers of foreign texts to quickly look up words in online dictionaries instead of having to reach for the traditional printed dictionary on the shelf. But can this advancement help students increase their vocabularies? Will there be a significant difference in students' vocabulary acquisition if educators start replacing their standard books with on-line texts and dictionary options?

As a high school sophomore studying French, I could count on hearing my teacher say, "What do I look like? A dictionary?" whenever I looked up from my reading to ask what a word meant. Her goal was to get us to search for an answer ourselves because she believed that if we took the time to look up a word, we would learn more vocabulary than if she just quickly told us what we wanted to know.

Years later, I gained a better understanding of her philosophy when I learned that research verifies that students using dictionaries consistently learn more vocabulary in the short term than students who have only a text in front of them (Knight 288; Luppescu & Day 282; Summers 112). And in preparing to become a French teacher myself, I could see why she did not want students asking her every single time they wanted to know what a word meant, but I still hated interrupting my reading to look up an unknown word. Any student learning a second language can complain of the inconvenience involved in building up his or her vocabulary by this method, and many students try whenever possible to avoid reaching for a dictionary.

It seems to take forever to find a word when all you want to do is get on with the work.

Fortunately, the world has changed rapidly since my high school days, and there is now a way for students to quickly discover the meaning of a word without constantly pestering their teachers with questions or wasting their time searching through pages of definitions. Dictionaries no longer come in just hardback or paperback editions. Foreign language educators can now offer students the option of referring to an on-line dictionary right alongside the text they are reading on their computer monitor, making the hassle of fumbling with an additional book a thing of the past. But does using an on-line dictionary instead of the traditional printed version have an effect on the amount of vocabulary students acquire from reading? While researchers have studied several of the advantages and disadvantages of computer-mediated reading, to my knowledge no one has examined whether the development of enhanced vocabulary by using a dictionary while reading applies equally to on-line dictionaries.

Students gain vocabulary from reading, regardless of whether they use a dictionary (Krashen 7). Research has shown that, at least in the short term, those students using a dictionary gain more vocabulary than students having only the text in front of them. Unfortunately, students using a dictionary typically take twice as long to read a passage, and thus they end up reading less text in a limited period of time than if they were to

read without a dictionary (Summers 112; Lupescu & Day 282; Knight 291).

Hulstijn, Hollander and Greidanus conducted a study in which they showed, just as previous research had, that students with dictionary access score higher on a post-reading test designed to measure short-term vocabulary gains than students who were simply given a text (330). What was particularly interesting about their study is that they addressed the question, "If students with dictionary access look up a term while reading the passage, do they get that item right on the post-reading test?" They concluded that students who looked up a term nearly always got the corresponding post-test item right. At the same time, they found that the students in the dictionary group tried to avoid using the dictionary as much as possible. It appeared that if students spent the time and effort to look up terms, they were rewarded with a solid short-term memory of the words, but students did not want to take the time to do so (337). Perhaps making a dictionary quicker and easier to use would encourage students to reference one more often.

An online dictionary is one possible tool that can help students reference a dictionary. While reading a passage on a computer screen, students can click on any word in the passage and a standard dictionary entry of that word appears somewhere else on the screen. Students can find a dictionary entry much quicker by this approach instead of having to pick up a book and search through it.

Most of the research concerning online dictionaries and other computer-mediated reading options have dealt with the question "how do these tools affect reading comprehension?" In both the areas of native language and second language reading, researchers have come up with a variety of answers that often contradict each other. Some studies have claimed that computer-mediated options improve comprehension significantly (Knight 297; Summers 122; Reinking & Schreiner 548), while others have concluded that these technological options have no influence on reading comprehension (Nesi & Meara 639; Bensoussan, Sim, & Weiss 272; Feldman & Fish 33). Many researchers' conclusions lie between these two claims in stating that there is a possibility that computer applications can improve students' reading comprehension (Reinking 495).

In this study, I chose to focus on short-term vocabulary gains that occur during reading with dictionary use. I approached with the hypothesis

that students using an online dictionary would gain more vocabulary in the short term than those using a traditional print dictionary. Based on what previous research had shown (Aust, Kelley, & Roby 69), I predicted that they would look up more words than would their peers. Even more importantly, not only would these students using the online dictionary have contact with more definitions, but they would also be able to stay closer to the reading passage while viewing them.

Students learn vocabulary from reading primarily because the learning is contextualized (Hadley 125). They see a word used in a passage and tend to remember it based on how they saw it used. One of the advantages of using a computer is that it allows students to focus on what they are learning instead of devoting their attention to mechanical aspects of certain tasks (Collins & Brown 12). In the case of an online dictionary, students are able to focus on the meaning of a word, rather than concentrating on finding a word in its alphabetical placement in the dictionary. At the same time, students can see the dictionary entry right alongside the reading passage and do not have to go back and forth between the passage and a paperback dictionary. While both online and traditional dictionary users in this study could look up a definition of a word as well as see the word used in context in the story, those students using the technological option should be better able to place the meaning of the word in the context of the story and thus more effectively acquire the meaning of the word.

This study was conducted at Brigham Young University during its Fall 1996 Semester with French 201, or third semester French, students. I selected this level of French study since these students had adequate French abilities and experience to allow them to complete the two main tasks of this activity: reading a short passage and using a bilingual dictionary. Six sections of the course were offered at that time, and all students in any section were required to participate. Students' post-test scores had no influence on their class grade, and they were simply given credit for participating in the study.

A total of 129 students completed the actual experiment, and they were randomly divided into two groups. The traditional dictionary group read a passage on a computer screen and was given a copy of a paperback dictionary to use while reading. The online dictionary group read the same passage on a computer screen and could click on any word to see the exact same dictionary entry that the traditional group had in the printed book.

To determine if greater short-term vocabulary gains occurred in either group, students took a vocabulary test immediately after reading the passage. This test consisted of 30 multiple-choice items in which students read an excerpt of a dialogue between two people in English. They had to fill in a blank in the dialogue by choosing one of four French items that would make sense if translated and placed in the blank. All test choices came from the reading passage, and each correct choice was placed in a context similar to the one in which it was used in the passage.

In developing the experiment, I decided to not give students a pre-test for fear of biasing them in their approach to reading the passage. Some of them would have probably decided that those words which they had seen on the pre-test were key items in this study and would have specifically looked them up while reading the passage. To evaluate equivalency between the two groups as well as to identify any outlying students in terms of French knowledge, I considered two different measures of students' French abilities. First, I collected students' scores on a placement exam taken at the beginning of the semester. Second, I calculated a course score for each individual by summing his or her first three French 201 unit exams of the semester. All students, regardless of which section of French 201 in which they are enrolled, take the same unit exams prepared by the course co-ordinator.

Both groups read a 1,000 word passage taken from a French magazine, *L'Express International*, that examined how French children were watching less television and were watching it with a more critical eye than previous generations had (Saranga). I picked this article because I thought that its subject would be interesting to students and also because the text contained a sufficient number of new terms for French 201 students to encounter.

A bilingual dictionary (Steiner) was used in this experiment since students had the background dictionary experience needed to use this tool. Research has shown that students struggle with using any type of dictionary without prior instruction (Jacobs 12) and, therefore, I felt that a bilingual dictionary was the best choice for this group. In creating the online dictionary, I scanned dictionary entries from the paperback book that the traditional group would use, allowing both groups access to the exact same entries.

Students completed the experiment in the Humanities PC Computer Lab over the course of a

week and a half at the end of September 1996. A test proctor was present during each of the sessions to answer any computer-related questions. Both groups were given a short "advance organizer" introduction that informed them that they would be reading about children's television viewing habits in France. The online group was informed how it could access its dictionary and during the reading phase of the experiment, the computer kept track of which words students requested and of how long they spent reading the passage. The traditional group was requested to click on any word it looked up in the paperback dictionary so that the word would appear in a box below the text on the computer screen. A test proctor was circulating around the room to ensure that students actually provided this information, and the computer recorded both this list of words and the reading time of traditional group participants. Both groups had unlimited time and unlimited access to its dictionary option during the reading phase of the experiment.

The traditional dictionary users had to turn in their book and have the test proctor enter a password before going onto the post-test. Both groups took the exact same post-test and had unlimited time to complete it in. The computer scored participants' responses and timed them while they were taking the test. Students were not given their post-test score and, at the end of the test, they read a message reminding them that their scores had no impact on their class grade and that they should not discuss this activity with their friends who had not completed it yet. The purpose of this conclusion message was to discourage students from biasing their classmates who would complete the project later.

In analyzing the data afterwards, the first question I addressed was that of equivalency between the two groups. In the area of placement exam scores, there was a significant difference between the two groups, with the traditional dictionary group having higher scores. Interestingly, in terms of course scores, there was no such significant difference. In examining the two groups individually, placement exam and course scores were significantly correlated with each other, which makes the difference in these factors compared between the two groups all the more unclear. There is the possibility that the traditional dictionary group may have approached the activity with a stronger background knowledge of French. In any case, I could not completely establish nor refute equivalency between the two groups.

Despite the lack of clarity in the area of equivalency, I went on to make other comparisons between the two groups. In examining post-test scores, both groups' means were approximately 17, with no significant difference between the two groups. This result does allow the possibility that the online dictionary may help students more. The overall mean score of a placement exam measuring previous French knowledge was significantly higher for the group of students using a paperback dictionary. Yet students in the computerized dictionary group scored just as well on the post-test as did their peers in the traditional dictionary group who may have approached the activity with greater previous French knowledge.

The next question I considered was if any of the other variables predict how students will score on the post-test. The two variables that turned out to be the most closely correlated to post-test scores were placement exam and course scores. This fact suggests, as most people would predict, that students who have been successful in learning French in the past will learn more vocabulary and achieve higher scores on the post-reading test.

The key difference between the two groups was the number of words that students looked up. Previous research had shown that subjects using an online dictionary will look up more words than subjects using a traditional dictionary, and this study verified this finding with the online group's mean of number of words looked up being 65 words and the traditional group's mean being 11. Both groups had a large range and standard deviation in this category, indicating that there was a great deal of variety in how each individual student approached the activity.

After I established that the online group had looked up more words than the traditional group, my next question was if there were a difference in reading times. Interestingly, there was no significant difference in this area. It appears that students varied the number of words that they looked up, with the online group referring to the dictionary more often, but also in a quicker manner, so that the two groups ended up with the same reading time mean.

The greatest thing that the data analysis showed was just how varied individuals are in their approach to reading with a dictionary. Students in this study were simply instructed to read the passage and be prepared for a quiz regarding it afterwards. They were not biased to read the passage with a goal of learning as much vocabulary as possible. As I examined the data, I kept searching

for a pattern in how individuals referred to the dictionary, but instead I found that there was a large variety in both groups that did not support any type of generalization. Some individuals looked up a large number of words in a very short time. Others chose to not even touch their dictionary and to spend a rather long period of time with the passage. One student who looked up 6 words got the exact same post-test score as another individual who looked up over 150. In comparing the two groups, it appeared that the type of dictionary available was not a key determining factor in this area.

Due to the lack of equivalency between the two groups, I could not accept nor reject my research hypothesis. The data does not support any conclusion on whether the online dictionary option is better or worse than its traditional predecessor in terms of its impact on vocabulary acquisition. It does appear to be a viable option for educators to use in facilitating learning, and future research should be done concerning its use.

Some limitations must be kept in mind in considering the results of this experiment and in planning future research. First, students did not take a pre-reading test to verify that they had not previously learned the vocabulary items tested. While this step avoided biasing students' approach to reading the passage, it also unfortunately means that there are no guarantees that students actually learned the vocabulary items from reading the passage. It is possible that some students may have learned some of the words prior to the study. Future research should include a control group of non-readers to rule out this possibility.

A second consideration is that the role of reading comprehension was not addressed in this study. In evaluating the development of the completed experiment, I realized that reading comprehension potentially has some impact on the acquisition of vocabulary in this study, since students were encountering new words through the medium of reading and being tested on them in a context similar to the reading passage. Future studies should also consider the relationship between understanding the content of a reading passage and learning new vocabulary items from it. Also, it must be remembered that this study dealt only with short-term vocabulary gains, and additional research is necessary before any conclusions can be made regarding long-term impact.

Finally, this study only included one of many possible computer applications that can be brought to reading with dictionary use. Technological

developments allow educators to include sound, still images, and video along with the standard text dictionary entry. Additional research which includes these and other options will allow instructional developers to better utilize the many applications computers can bring to education. This study along with other research shows that simply placing computers in the classroom does not guarantee educational improvements. But studying different ways of implementing technology will allow educators to wisely use these new tools, and future research should be continued in this area of computer applications.

Works Cited

- Aust, Ronald, Mary Jane Kelley, and Warren Roby. "The Use of Hyper-Reference and Conventional Dictionaries." *Educational Technology Research and Development* 41.4 (1993): 63-73.
- Bensoussan, Marsha, Donald Sim, and Razelle Weiss. "The Effect of Dictionary Usage on EFL Test Performance Compared with Student and Teacher Attitudes and Expectations." *Reading in a Foreign Language* 2 (1984): 262-76.
- Collins, Allan, and John Seely Brown. *The Computer as a Tool for Learning through Reflection*. ERIC ED 281 503, 1986.
- Feldman, Shirley C., and Marian C. Fish. "Use of Computer-Mediated Reading Supports to Enhance Reading Comprehension of High School Students." *Journal of Educational Computing Research* 7 (1991): 25-36.
- Hadley, Alice Omaggio. *Teaching Language in Context*. 2nd ed. Boston: Heinle and Heinle, 1993.
- Hulstijn, Jan H., Merel Hollander, and Tine Greidanus. "Incidental Vocabulary Learning by Advanced Foreign Language Students: The Influence of Marginal Glosses, Dictionary Use, and Reoccurrence of Unknown Words." *Modern Language Journal* 80 (1996): 327-39.
- Jacobs, George M. *Dictionaries Can Help Writing—If Students Know How to Use Them*. ERIC ED 316 025, 1989.
- Knight, Susan. "Dictionary Use While Reading: The Effects on Comprehension and Vocabulary Acquisition for Students of Different Verbal Abilities." *Modern Language Journal* 78 (1994): 285-99.
- Krashen, Stephen. *The Power of Reading: Insights from the Research*. Englewood: Libraries Unlimited, 1993.
- Lupescu, Stuart, and Richard R. Day. "Reading, Dictionaries, and Vocabulary Learning." *Language Learning* 43 (1993): 263-87.
- Nesi, Hilary, and Paul Meara. "How Using Dictionaries Affects Performance in Multiple-Choice EFL Tests." *Reading in a Foreign Language* 8 (1991): 631-43.
- Reinking, David. "Computer-Mediated Text and Comprehension Differences: The Role of Reading Time, Reader Preferences, and Estimation of Learning." *Reading Research Quarterly* 23 (1988): 484-98.
- Reinking, David, and Robert Schreiner. "The Effects of Computer-Mediated Text on Measures of Reading Comprehension and Reading Behavior." *Reading Research Quarterly* 20 (1985): 536-62.
- Saranga, Karen. "Les enfants jugent la télé." *L'Express International*, 29 Feb. 1996, 30-32.
- Steiner, First. *The Bantam New College Revised French and English Dictionary*. New York: Bantam, 1990.
- Summers, Della. "The Role of Dictionaries in Language Learning." *Vocabulary and Language Teaching*. Ed. Ronald Carter and Michael McCarthy. New York: Longman, 1988.