

Efficiency in Second Language Vocabulary Learning

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arrive if the phoneme are not identified right away they can be stored in the storage system if they are identified but cannot be matched to a lexeme in the semantic area they can go back to the loop and be stored again if many words are rehearsed need to go back or come in simultaneously they compete for attention and they are matched if a word does not get the attention it falls out of the loop. The loop can hold information for a couple of minutes, add it. After each rehearsal there needs to be a pause or a distraction in order to go to the next and start a new process when the word is repeated. Therefore uniform and extended intervals that incorporate such a pause or distraction are more efficient and lead to higher recall rates.

Cuedon, Carver, and Lohr, Landauer, and Schmitt point out that although not much research using this technique was carried out in the discipline of second language acquisition the findings were applied to second language vocabulary learning by creating flashcards. The earliest team of researchers was Leuch and Leitner, *Leuch and Leitner*. The effect of a heard and a first undergraduate student taking course such as beginning German to face the challenge of learning and remembering many words in a short period of time out of the many flashcards that are available the evidence either a part of or separate from the loop or

ection of a course called , beginning. German. A questionnaire asked student about their
 review, no edge of. German in order to have homogeneous group for detail see the
 methodology section. The student of the section used the extended and student of the
 other section the uniform interval in the experiment each group a hom order
 in order point. The number had been chosen a student in the beginning. German course
 need to acquire about order in each character of the in combination and in
 reduction, a changing content to function order order were elected for the experiment
 content and function order. The order had been elected based on the fact that the
 would not be part of the textbook that a student for this course would not en-
 counter them outside the experiment. It could not be completely ruled out that stu-
 dent did encounter some order outside the content of the text. However, the probability of
 that scenario is the same for a group. The order chosen for the text were common order
 listed in, one and Thirner frequency dictionary in the experiment. The or-
 der point a hom order student four times. Student assigned to the extended interval a the
 order on days one to four and eight. Student assigned to the uniform group on days one
 four eight and eleven. Each time each of the order a hom order for eight seconds to
 seconds for the English order and six seconds for the German translation with the English order
 remaining on the screen. Choosing to hom order for six seconds based on a method
 established in cognitive psychology for an overview, a total of a including
 a total of seconds. Each order the total time for the order point a student even
 minute. The German order included student were asked to write down the German
 order on a piece of paper. After each trial a paper collected. Three tests were carried
 out in which student were given the English order and had to write down the German order.
 The first test a day after the first trial, the second test four days after the first trial and
 the third test eight days after the first trial. A multivariate analysis of variance was carried
 out for each experiment analyzing the result of the extended group. Here student had
 participated in each trial and each test a day after the result of the uniform group. Here
 student had participated from start to finish.

The experiment in the fact of student showed that the extended group re-
 ceived more order in the first test and the uniform group in the third test. In the second test
 the two groups were equal. One of the differences were statistically significant though. The error
 rate were 0.25, uniform group v 0.25, extended group in test. Dropping to 0.25,
 uniform group v 0.25, extended group in test. That is a surprising human order stu-
 dent had forgotten the end of the language course although the number were in line
 with that. It had a read pointed out in his book on how to measure second lan-
 guage vocabulary acquisition. The experiment also showed that on each test each group re-
 ceived content order more successful than function order and the difference were
 statistically significant. An interesting aspect of the result were the question came up. The error rate
 could be improved by increasing the number of encounters.

Another set of experiment was devised. The experiment in the fact of used the same
 methodology as the one with one exception. The number of encounters was extended to
 five. There was no student from the section of beginning German were able to participate due
 to the schedule. The groups were therefore made with undergraduate in the ex-
 tended and a day in the uniform group. The schedule for the extended group a day one to
 four eight and fifteen and for the uniform group days one four eight eleven and fifteen.
 The student showed that the extra encounter gave the extended group a boost
 on short-term gain outperforming the uniform group on the first test and holding on to the
 higher error rate on the second test but on the third test student using the uniform interval

showed higher recall rate than the had in the study. A in the experiment difference were not statistically significant. A recall rate were compared to the experiment in the uniform group and expanded group in the uniform group and expanded group. A in the experiment student in both groups recalled more content than function, and the difference being statistically different.

However the study was designed to investigate if a reduced word load would improve recall rate. The previous experiment in the favour of and the favour of had used content and function words for a total of word chunks. For this study the number of content words was halved from to. The number of function words was also reduced but in order to have a balance between content and function words it was reduced from to nine. There were four nouns, four verbs and four adjectives were tested, a three conjunction, three prepositions and three adverbs. Appendix A for a complete list. The words were taken from the word list used in the previous study in order to compare results. Words selected had been checked against the textbook used for beginning German to avoid that students encountered those words outside of the study. They were also checked to compare with one and Thirmer dictionary of the most common used words in German.

Procedure

For each word a corresponding image was created using the same font and same background colour for a given image. In each image the English word was presented on the left side of the screen. After two seconds the German equivalent word was presented on the right side and appeared for a second. Here the English word remained. The German word that appeared was given out loud. Each image was shown for eight seconds. The reason to include sound was to reflect the situation of how a learner often encounters a word in another language.

Participants were asked to copy down the German word they saw and heard on a piece of paper. This was done as they had to write down the German word in the text that followed. The activity of writing needed to be practised. Each corresponding word was presented in the 10-minute of class time. Those students not participating in the study left the classroom at that point. At the end of class the researchers collected a paper as it was done in the previous experiment. Naturally in a classroom study not a factor can be controlled. It is possible that a couple of students would encounter either by chance or on purpose the word practised somewhere else. However that chance was equal for both groups and since it was the performance of the groups as a whole that was compared the risk of this happening was determined to be acceptable.

Both groups saw and heard the word of the corresponding four times. The previous study chunks had shown that the recall rate improved when the number of words was constant but the number of repetitions increased by one from four to five. On the other hand the recall rate would change if the number of words was decreased but the number of repetitions kept constant at four. In the study presented here was equal in the previous study each time the order of the words was different to avoid testing effect that is the order of word prime the next word. Participants in the uniform group practised the word on days one, four, eight and eleven. Here participants in the expanded group on days one, two, four and eight. This was the same spacing schedule that had been used in the experiment in the favour of.

Tests

Three retention tests were carried out in each study, one the day after the last practice test, one four days after the last practice test and one eight days after the last practice test. In each test a set of the twelve content words and nine function words were tested for a total of

word in a text the English word a given and participant had to write down the German word

Limitations

In a study and it is to be that student did have contact with the word tested outside the study for example surfing for things German on the internet however based on the experience of other studies carried out on vocabulary acquisition at the beginner level the robustness of such a situation is quite low due to the busy schedule of student taking

In summary, the results show that using either interval uniform or extended the retention rate for content words are significantly higher than those for function words. However, the effect diminishes with time. Comparing the uniform with the extended group for a word content and function words combined, recall rates were significantly higher for the uniform group than for the extended

Appendix A. Word List