

UDC 81

<https://doi.org/10.33619/2414-2948/58/42>

VOCABULARY RETENTION IN COGNITIVE THEORY

©Allanazarova M., Tashkent State University of Law,
Tashkent, Uzbekistan, m.akhmedovna@mail.ru

СЛОВАРНАЯ ПАМЯТЬ В КОГНИТИВНОЙ ТЕОРИИ

©Алланазарова М. А., Ташкентский государственный юридический университет,
г. Ташкент, Узбекистан, m.akhmedovna@mail.ru

Abstract. Vocabulary learning has been a key aspect of acquiring a second language for many years. Many scholars and linguists claimed that learning languages cannot be successful without a wide range of vocabulary. However, most ESL learners are confronted with recalling difficulties as they tend to forget the word fast that they learned recently. These challenges are commonly discussed and researched by Cognitivists since they deem that there are several reasons for forgetting associated with memory and mental process. This case study entails small-scale research on vocabulary retention, reasons for forgetting, and some potential solutions to recall words in the second language. For this case study, we have chosen Cognitivism Theory in a bid to investigate and find out remembering challenges of our ESL learner and give her some possible solutions because according to cognitive psychology it is said that systematic forgetting occurs owing to interfering effects, a continuation of the very process of subsumption, neurolinguistic blocking and other factors. Relying on their findings we tried to help our seventeen-year-old student who tends to forget English words easily. In this case, the hypothesis of the research is that pictorial texts or stories can be more effective for short and long-term vocabulary learning and retention.

Аннотация. Изучение словарного запаса было ключевым аспектом приобретения второго языка в течение многих лет. Многие ученые и лингвисты утверждали, что изучение языков не может быть успешным без широкого словарного запаса. Тем не менее, большинство учеников ESL сталкиваются с трудностями воспоминания, поскольку они склонны забывать слово быстро, которое они выучили в последнее время. Эти проблемы обычно обсуждаются и исследуются когнитивистами, поскольку они считают, что есть несколько причин забывания, связанных с памятью и психическим процессом. Это тематическое исследование влечет за собой небольшое исследование по сохранению словарного запаса, причинам забвения и некоторым потенциальным решениям для запоминания слов на втором языке. Для этого примера мы выбрали теорию когнитивизма, чтобы исследовать и выяснить проблемы запоминания нашей ученицы ESL и дать ей некоторые возможные решения, потому что согласно когнитивной психологии говорят, что систематическое забывание происходит вследствие мешающих эффектов, продолжения сам процесс погружения, нейролингвистическая блокировка и другие факторы. Опираясь на их выводы, мы постарались помочь нашему семнадцатилетнему студенту, который легко забывает английские слова. В этом случае гипотеза исследования заключается в том, что графические тексты или рассказы могут быть более эффективными для краткосрочного и долгосрочного изучения и удержания словарного запаса.

Keywords: cognitivism theory, retention, ESL, psychology, subsumption, neurolinguistic blocking, pictorial texts, long-term and short-term retention.

Ключевые слова: теория когнитивизма, удержание, ESL, психология, погружение, нейролингвистическая блокировка, изобразительные тексты, долговременное и краткосрочное удержание.

Introduction

By carrying out this research, we came to realize that vocabulary learning has a crucial role in conveying the language. It is said that knowing 2500 words enables a student to communicate effectively in daily interaction [1]. Therefore, teaching the vocabulary of the target language should be also of importance for ESL teachers.

However, not all learners can succeed in acquiring the vocabulary due to several reasons and many cognitivism and psychologists have been dealing with these issues. One of the prominent cognitive psychologist David Ausubel stated that meaningful learning is often compared with rote-learning [2]. He described that rote learning is the process of associating the recently learned word with the existing cognitive structure. In this way, memory is divided into two main types which are short-term and long-term retention. Short-term memory or working memory was best-defined within “magic seven, plus or minus two“ of Miller’s Law in which people are able to recall a phone number that has just been recited for only seconds [3], whereas in long-term memory subsumed item is retained for a longer period. For instance, postal codes and street addresses are possibly remembered for a long time as they hold some meaningful relationship with the existence of houses or geographical places [3].

Besides, a wide range of experiments has been held in order to test memory in cognitive psychology. Landauer and Bjork (1978) were the first psychologists to test students who tried to remember names of faces on prearranged cards with the help of the technique “spaced repetition“. In this experiment, they attempted to compare the retention rates and concluded that recalling words in expanded spacing (increasing break between each repetition) led to higher retention rates. In the experiment used by Ulf Schuetze, it was proved that repeating words four times led to higher recall rates in comparison with repeating them three times [4].

When it comes to systematic forgetting, it is obvious that forgetting also occurs because of proactive and retroactive inhibition [5]. It means that if the level of interfering effects is relatively lower retention can be more sustainable. Also, Obler claimed that “neurolinguistic blocking“ is one of the contributions of forgetting as well. There are other reasons for language attrition including motivational factors, cultural identity, conditions of initial learning, and practice of that second language [5].

In order to solve these problems, scholars suggested many ways of remembering words and putting them in use. These strategies were classified as cognitive, metacognitive, memory, and activation strategies [6]. Later on, “Socioaffective” strategies were also added to the existing strategies. They also said that all of these strategies help ESL learners to enhance their vocabulary learning process.

Regarding one of the effective strategies, it is evident that learning new words through reading newspapers, textbooks, stories, and novels benefits students to comprehend the meaning of the words, process them in their minds and remember for a long time [7].

All in all, vocabulary development is a significant process of language learning and it helps students in all skills. Even though there can be a large number of difficulties to recall new words there are also several strategies created by cognitive psychologists [8].

Materials and Methods

Participant profile. For this case study, we have chosen to work with a seventeen-year-old student in our class who hails from Uzbekistan and has an Uzbek nationality. She studies at college and interested in chemistry and biology. The reason why she learns English is that in the future she wants to become a doctor and go abroad to work and study there. She was raised in a big family in which both of her parents work overseas. Interestingly, she is an avid reader as she enjoys reading novels and poems in her first language. She sometimes writes poems herself as well. Indeed, she has been learning English for more than a year and still has some challenges in her vocabulary learning. Even though she tends to be more introverted among other students she is a very clever and hardworking girl. When she came up to me for the first time, she was completely unable to communicate in English and fretted that she could never learn this language, but with our encouragement, she started to learn from scratch. So far Student A has achieved a great deal of success in conveying this language. She has English classes three times a week now. However, she still says that she has some difficulties with recalling newly learned words in English. Nowadays, her knowledge of English is pre-intermediate and she applies several ways of learning. For instance, she uses textbooks, listens to English songs, and converses with her peers in that language. She tells that she is willing to learn a wide range of new words and use them in her speech. We found that she is relevant to our chosen topic as she only has some problems with her vocabulary learning. While teaching her we found out that she is more likely to be a visual learner since she understands better when she reads and sees her notes. When she began studying English she learned firstly the grammar rules and applied them in speaking. At that time she mainly used common and simple English words, but she felt insecure to use new expressions as she was quite unsure about their meaning. Besides, Student A was prone to be shy to convey her thoughts to others and it inhibited her to speak more fluently, but she is very tolerant and hardworking and tries to learn more. According to our investigations, we figured out she tended to forget new words easily after a day without repetition. It proves that she owns a short-term memory and uses some inappropriate methods of vocabulary learning. Therefore, in this case, study, we attempted to find out some solutions to her problem and stimulate her to enhance her English vocabulary [9–10].

Discussion

Research design. This case study includes the following steps:

- pre-interview and test
- short pictorial reading story
- post-interview

Firstly, Student A was observed within this period in order to gain some information about her challenges and applied learning strategies. Pre-test (interview) was held at the beginning of the research and in this part roughly eight questions related to her learning experience and process were asked. The interview was recorded for almost four minutes and analyzed prior to the second stage (see Appendix I) after gathering enough data 20 words with definitions were given (see Appendix II). By this task her memory was also tested. Obviously, she used to memorize words in this way. Then, her learning process was observed in two weeks and according to her favorite activity (reading) short pictorial story “The frog Prince“ was chosen with the same words used in the pre-test to see the overall result (see Appendix III). She read the story, learnt new vocabulary concurrently with the pictures, did some exercises and retold it to me. Finally, post-interview was carried out so as to know her impression and experience regarding the process and the method used

for the improvement of her vocabulary retention (see Appendix IV). The interviews were recorded in English since she understands and speaks quite well now. All materials applied in this research were attached in the Appendix.

Even though the process of data collection tends to be complicated, it is also one of the interesting parts of this research. We began collecting the data curiously as the research was devoted to find out the reasons of vocabulary forgetting and suggest a possible solution. In order to collect all necessary data we used pre and post-tests and interviews. All stages were outlined as follows:

On the first day of the observation, Student A was asked several questions about the strategies she has used so far and overall impression. Her answers were recorded and we analyzed it later on. According to her answers we figured out that Student A only used traditional ways of remembering words. For example, she said that she memorized new words almost every day and kept a notebook to write them down and revise. However, she often tended to forget and could not use them appropriately in speaking because she was sometimes confused with their meaning. When she was asked regarding her impressions about forgetting it was obvious that she has negative feelings, as she felt frustrated and sometimes petrified to go on learning. She found that learning is difficult for her since there are many definitions of English words. The last question was about her attempts to improve her memory and vocabulary, and for this question she answered that she tries to talk to English friends and writes letters. Via her overall answers we knew that Student A is more likely to have a short-term memory and her method of learning vocabulary is not useful and effective for her. Therefore, she has to try other methods to obtain more improvement. After the pre-interview, she was given a wordlist of 20 words and their definitions. She always applied this method before. All the words were taken from the short story named “The Prince Frog”. She got only 15 minutes to look through the words and memorize. Then, when she asked to write the definitions of the words and she could barely recall 9 out of 20 words. It was obvious from her definitions she mostly relied on her background knowledge and wrote only short definitions of the words. It means that she could not remember longer words and it also proved that just using wordlists would not help her and she was unable to use them in speaking because she did not understand the meaning and their usage in a sentence well.

Result

Afterward, as she is a visual learner and absorbed in reading books we chose an interesting pictorial story and gave her to read. Firstly, she looked through the new words that she was going to encounter in the text. All of them were defined with examples and funny riveting pictures. After that, she read the story in ten minutes and comprehend it. When she was asked whether it was understandable she said yes right away. Then, she scanned the new words again and tried to memorize them prior to retelling it to me. This time she got more results because she was able to remember 15 out of 20. Importantly, when she was given vocabulary exercises of this story she started doing them eagerly and curiously. Three exercises were selected and she did them one by one, but it only took 10 minutes as she already knew the words. Surprisingly, she only made one mistake. She liked the story as well and was really happy to retell it. She said that while reading the story she understood the usage and meaning of the words much better. She also attempted to make up her own examples by using those newly learned expressions. After two days we asked again to check whether she still recalls or not, and she remembered 13 words well. Interestingly, Student A was asked about the activity she answered in this way:

Student A: I liked it a lot. Before I had many problems with memorizing words, but in the text, words are easy for me and it was very beneficial for me. I will use this activity because it is very helpful.

With this outcome, we found that pictorial texts or stories are genuinely productive and beneficial for vocabulary retention as well as bettering speaking skills.

Conclusion

Indeed, this case study is largely based on Cognitivist Theory as we tried to find out about our learner's challenges related to remembering, her memory type, and vocabulary retention in ESL. We chose specifically this topic since we had the same problem related to memorizing words when we started learning English. This girl is really hardworking and enthusiastic about language learning, but due to forgetting she is sometimes demotivated. Therefore, we really wanted to help her to overcome these difficulties by showing the right way of learning vocabulary. Obviously, Cognitivist Theory is greatly relevant for this topic and it helped me to analyze reasons for forgetting and find her best-suited style of learning. While carrying out this case we knew that since she is a visual learner and interested in reading, the pictorial story really motivated her to gain vocabulary retention. Baddeley stated that when the word is first encountered it is important to look at how it is processed. Longer words are difficult to process and therefore they remain in memory with difficulties. In Student A's case, it is also the same because she could not remember the longer words when we gave the wordlist with definitions and she almost relied on her background knowledge. Hence, we selected the pictorial reading according to her interest and it helped her and me to analyze her problems in memorizing and find out her favorite style. We think she got also motivation towards learning words as she was very eager to do all exercises related to reading passage. Our hypothesis has been proven via this case study. We noticed an improvement in her vocabulary retention. With these perceptions, we can surely say that she should go on learning words in this way. In our opinion, cognitivism's findings and opinions about forgetting and vocabulary strategies are totally right because everyone can face this difficulty and there can be different reasons. It is important to find the primary reason for this forgetting and suggest an appropriate strategy for the learners. This case study taught me a lot. We learned that while teaching teachers should also be psychologists in order to try to help them to solve their problems and suggest a good strategy according to their interests and personality. We believe that learners can learn and speak more fluently when they know more words and their usage in the context. Reading stories with pictures is a good motivation for learners who would like to recall as many words as possible. The cognitivist theory also plays a great role in teaching and learning a language. When we read about this theory we were so sure about this importance, but after collecting the data from different sources and reading them we came to know that learning the mental development of the learner is very crucial. In our future classes, we are going to apply more cognitive strategies as well, especially for those who have problems with remembering. Furthermore, we will try to find out their problems and suggest possible solutions.

References:

1. Aitchison, J. (2003). *Words in the Mind. An Introduction into the mental Lexicon.*
2. Asgari, A., & Mustapha, G. (2012). Vocabulary learning strategies of Malaysian ESL students. *Pertanika Journal of Social Sciences & Humanities*, 20(3), 751-764.
3. Baddeley, A. D. (1999). *Essentials of human memory.* Psychology Press.

4. Brown, H. D. (2000). Principles of language learning and teaching. V. 4. New York, Longman.
5. Friedrich, M., & Friederici, A. D. (2011). Word learning in 6-month-olds: fast encoding-weak retention. *Journal of Cognitive Neuroscience*, 23(11), 3228-3240. https://doi.org/10.1162/jocn_a_00002
6. Schuetze, U. (2015). Spacing techniques in second language vocabulary acquisition: Short-term gains vs. long-term memory. *Language Teaching Research*, 19(1), 28-42. <https://doi.org/10.1177/1362168814541726>
7. Weltens, B. (1987). The Attrition of Foreign-Language Skills: A Literature Review. *Applied linguistics*, 8(1), 22-38. <https://doi.org/10.1093/applin/8.1.22>
8. Wenden, A. (1985). Learner strategies. *Tesol Newsletter*, 19(5), 1-7.
9. Young, R. F. (2008). Language and interaction. London and New York, Routledge.
10. Zangwill, O. L. (1975). The ontogeny of cerebral dominance in man. *In Foundations of language development. Academic Press*, 137-147. <https://doi.org/10.1016/B978-0-12-443701-2.50018-4>

Список литературы:

1. Aitchison J. Words in the Mind. An Introduction into the mental Lexicon. 2003.
2. Asgari A., Mustapha G. Vocabulary learning strategies of Malaysian ESL students // *Pertanika Journal of Social Sciences & Humanities*. 2012. V. 20. №3. P. 751-764.
3. Baddeley A. D. Essentials of human memory. Psychology Press, 1999.
4. Brown H. D. Principles of language learning and teaching. New York: Longman, 2000. V. 4.
5. Friedrich M., Friederici A. D. Word learning in 6-month-olds: fast encoding - weak retention // *Journal of Cognitive Neuroscience*. 2011. V. 23. №11. P. 3228-3240. https://doi.org/10.1162/jocn_a_00002
6. Schuetze U. Spacing techniques in second language vocabulary acquisition: Short-term gains vs. long-term memory // *Language Teaching Research*. 2015. V. 19. №1. P. 28-42. <https://doi.org/10.1177/1362168814541726>
7. Weltens B. The Attrition of Foreign-Language Skills: A Literature Review // *Applied linguistics*. 1987. V. 8. №1. P. 22-38. <https://doi.org/10.1093/applin/8.1.22>
8. Wenden A. Learner strategies // *Tesol Newsletter*. 1985. V. 19. №5. P. 1-7.
9. Young R. F. Language and interaction. London and New York: Routledge, 2008.
10. Zangwill O. L. The ontogeny of cerebral dominance in man // *Foundations of language development. Academic Press*, 1975. P. 137-147. <https://doi.org/10.1016/B978-0-12-443701-2.50018-4>

*Работа поступила
в редакцию 07.08.2020 г.*

*Принята к публикации
12.08.2020 г.*

Ссылка для цитирования:

Allanazarova M. Vocabulary Retention in Cognitive Theory // *Бюллетень науки и практики*. 2020. Т. 6. №9. С. 414-419. <https://doi.org/10.33619/2414-2948/58/42>

Cite as (APA):

Allanazarova, M. (2020). Vocabulary Retention in Cognitive Theory. *Bulletin of Science and Practice*, 6(9), 414-419. <https://doi.org/10.33619/2414-2948/58/42>

