

The Effect of Pictures and Sentence Examples on Foreign Language Vocabulary Learning

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Abstract: Words are building blocks of a meaningful communication, which make them very significant in terms of languages. Vocabulary is always one of the most important grade when the point is foreign or second language learning and teaching. Many people must have seen images or pictures and sentence examples being used to enable learners to learn new vocabulary. Some think pictures are more efficient on vocabulary learning while others think the more efficient ones are sentences. The purpose of this study is to find which technique is more efficient; sentence examples or pictures. To find an answer to this question, 20 Turkish speaking, Uludağ University students, whose ages ranged from 18 to 25 and who studied English as a foreign language at least one term, participated in the study on the days between 22 and 30 April in 2016. They did it in cafes, at Uludağ University and in a girls' dormitory, so we can say the majority of the participants were females. Their level were neither tested nor asked because there was no specific level demanded for participating in the research. Firstly, they were given a pre-test on which there were 20 English words with a blank next to each word. The participants were requested to write the Turkish translations or meanings of the 20 target words next to the words, in the blanks. Then, 10 of them have received paper on which there were pictures that represented the target words (Picture Group) and the other 10 have received paper on which there were sentence examples including the target words and their Turkish translations except for the target words' translations (Sentence Group). The two groups examined the paper. Soon after, all of them were given the post-test which were the same as pre-test. They tried to write the Turkish translations or meanings of the target words again on the post-test. Their pre-test and post-test results were compared and the per cent of the gap between the results of the pre-test and post-test was computed by considering and counting the correct translations in both tests. It was unsurprisingly observed that all of the participators increased their correct translations, which shows positive effect of pictures and sample sentences on vocabulary learning. While the Picture Group made 29,5 per cent process, the Sentence Group did 32,5. These findings suggest that sentence examples may have more positive effects than pictures have on foreign language vocabulary learning.

Key words: EFL, vocabulary learning, sentence samples, pictures, images.

Introduction

Vocabulary is one of the most important steps in process of language learning. It has a great role in this road. It is impossible to underestimate the importance of vocabulary learning both in first language and foreign or second language. Now that

the term “language” is mostly defined as a tool for communication and words are the smallest meaningful parts of a language, vocabulary is the beginning of meaningful communication. According to Huang and Chen (2011) vocabulary is the basic access for mastering a language; it is not a simple process since several skills are involved. This definitely makes it worth to be researched on and developed.

Numerous research studies have shown that there are positive effects of pictures and meaningful contexts on foreign language vocabulary learning. One of the most common findings on vocabulary learning is that pictures are remembered for a longer time than the time that people remember words. For example, when shown a list of easily named pictures versus their corresponding verbal labels, participants often have an easier time remembering the names of the pictures rather than the verbal labels (Paivio & Csapo, 1973; Paivio, Rogers & Smythe, 1968). On the other hand according to Blachowicz (2007) vocabulary learning is long lasting when students use words in meaningful ways. There would be no surprise that reading and writing sample sentences would be one of the best strategies in facilitating vocabulary learning. (Shoari & Dvatgar, 2015).

The main study aims to investigate which strategy is more effective on foreign language vocabulary learning, words with pictures, or words in meaningful contexts like sentences? For years, learning foreign languages, especially English, has been major demand of people from varied status. So, making the process of learning easier, faster and permanent is wished and required. There are plentiful approaches, methods, techniques and materials which teachers use in their classes for this aim. Owing to the conclusion of the main study, it may be possible to reach this aim in a more appropriate and easy way. The teachers may try pictures or sentence examples while teaching for a better training.

Whether or not pictures and meaningful contexts contribute to vocabulary learning is not likely to be a question or discussion. While elementary course books use pictures, dictionaries use sentence examples. Of course they have a purpose. Thanks to the studies on vocabulary learning strategies, one can say that they manage it. Although both of the strategies are used by educators, ideas about their permanence and ease to be learned effectively are varied.

Pictures may ease learning vocabulary, yet permanence of learning is dependent. Learning vocabulary with meaningful contexts may not be very quick like it is with pictures, but trying to estimate the meaning of words and find it out makes learning more long-lasting. In other words, learning with pictures may actualise in short term memory, while learning with sentence examples may actualise in long term memory.

Since the vocabulary has a great importance on foreign language learning, innumerable studies have been carried out on increasing permanence and convenience on vocabulary learning. This study indicates two strategies which are pictures and sentence examples, and their efficiency, which is very significant in terms of foreign language education.

Review of the Related Literature

Vocabulary knowledge enables students to understand and communicate with others. It is not possible to underestimate the power of words. The most important step in vocabulary learning is how words are learned. This study tries to find an answer to this question: Which one is more effective on English vocabulary learning, pictures or example sentences? There have been hundreds of research studies on this subject. Effects of pictures and example sentences on vocabulary learning have been recorded. This is a comparison of these two activities. A great deal of the studies is focused on one activity rather than comparison of two.

According to Isabel L. Beck et al. (2009) teachers help their students in learning vocabulary with direct and indirect means. We don't learn the majority of words we know through teaching. It seems vocabulary learning is incidental. Context that surrounds a word in text can give clues to the word's meaning. Multiple, meaningful sentences assist learners acquire new words (Chilton & Ehri, 2015). So learners do not have to know all the meanings of words in sentences. They can estimate meanings from the context and may be use them later. The word is acquisitioned even if learners are not taught the meaning explicitly.

Dictionaries include example sentences which surrounds target words. Dictionaries are an important part of examples of sample sentences. Potgieter (2012) thinks that sentence examples in learner dictionaries are "intended to illustrate the meanings of words more clearly than is sometimes possible within the definition". Also Nielsen (2014) studied on dictionaries and examined that bilingual specialised dictionaries should not merely help users translate terms but be lexicographical tools designed to assist in foreign language communication. That is sentence examples in dictionaries not only provide translations, it provides help for communication, also. Moreover learners not only comprehend meanings, they also learn how target words are used in English language. There have been studies on only verb learning through example sentences in a meaningful scenario such as birthday party, school days: Chilton and Ehri (2015) embedded six unfamiliar verbs in sentences that contributed events to a common scenario after the learners were taught definitions. They saw that students learn verb meanings better in cohesive than unconnected contexts. So, learners learn verbs better when they are in example sentences which are parts of a scenario than

just independent sentences. In a nutshell, words which are components of meaningful context like sentences enable vocabulary learning.

On the other hand, visuals are considered as an effective part of language learning. English Language Teaching books are full of pictures, especially book for low graders. Language learning investigators have been studied on the role of visuals as pictures on vocabulary learning. Early researches have shown that the human brain processes images quicker than it processes words, and images are more likely than text to remain in our long-term memory (Levie & Lentz, 1982) This idea have been accepted by a great deal of teachers, investigators and educationists. Shana K. Carpenter & Kellie M. Olson (2011) investigated a study on pictures' effect on language learning. They did it with 116 participants and it was a comparison of pictures and translation's effect on vocabulary learning. In Experiment 1, there were 4 conditions: Participants were asked to recall the words which were given either the picture (1) or the English translation (3) or to recall all of the pictures (2) or English words (4) that they remembered seeing Afterwards, they had a test on the target words. The conclusion is that words were learned better from pictures than from translations. It is a considerable study in point of being a comparison of two.

On these days, visuals and pictures are everywhere. Even when we are at home we expose to television which is always open, smart phones which are always with us. It is impossible to get nothing from all these visual exposures. Baker (2015) indicates that language classrooms are an ideal location to cultivate the visual literacy skills involved in viewing and creating images. Indeed we are very likely to see colourful pictures, books in language classrooms. English can be the subject which makes use of pictures in classrooms the most. According to Baker (2015) technology plays an important role in terms of pictures which may enable language learning. Facebook, twitter, Instagram are an enormous source of pictures. They are also significant because of being authentic materials.

There have been studies on learning language with pictures which focuses on verbs, just like there have been in sentence example studies. Twomey et al. (2014) made use of a yellow star-shaped character on a grey background travelling horizontally back and forth at a constant rate. Children saw verbs while the star converted to another shape. After the procedure children were viewed positive effects of pictures on verb learning.

Picture books have a major position learning language with pictures. Sun (2015) accepts that authentic materials have been valued in English as a second/foreign language (ESL/EFL) teaching and learning, but she thinks the texts written for native

speakers at their age level are often seen too difficult for learners with a relatively small vocabulary size. So she considers that picture books may be a rescue for these learners. She recorded the positive effects of pictures on language learning as positive attitudes; focus on lessons and tasks; interactions with text, illustrations, and peers; and expansion of word learning and deep thinking. Of course her study is not the only one which focalises on picture books' role. Marian and Verhallen (2011) used 6 award-prising story books which contains pictures. While participants were reading books, a remote eye tracking system registered their eye movements. The study has shown that human figures are more attractive than the other figures. In point of language vocabulary learning, the use of human figures may enable more effective teaching and learning rather than nature or animals or anything else.

One more thing about picture books: A picture book does not have to contain words! According to conclusion of the study by Louie and Sierschynski (2015) teachers can teach English learners to engage in discussion, analysis, and production of their own texts through close viewing by making use of wordless picture books. While working with a small group, wordless picture books enables learners process in meaning-making process. This may also provide communications between students and teachers, so it brings about vocabulary and language learning.

Both example sentences and pictures have been investigated in terms of language vocabulary learning. It has been accepted that both of them have significant roles. Researchers, language teachers and educationists have studied and probably will study on these two positions.

The present study tries to find answers to these two questions:

1. Which is more effective on foreign language vocabulary learning, words with pictures which indicate the words or sentence examples which include their target words and their translations (excluding the target words)?
2. Is there a big distinction of efficiency between words with images and words with sentence examples and translations on foreign language vocabulary learning?

Methodology

The present study's methodology is based on only quantitative data approaches. The materials which were used, the information about the participants and the procedures and their details are stated in the following.

Participants

The participants were Uludağ University students ($n=20$) whose ages ranged from 18 to 25. Their gender was not considered as important, so there were males and

females disregarding of their quantity, yet the study was conducted partly in a girl dormitory so the number of female participants were more than the number of males. They were not studying ELT in their academic lives. However, all of them had studied English as a school subject at least during one term at Uludağ University. So, their proficiency levels varied according to their interests, needs, exposures and learned English skills which were taught in primary or high school and maybe in university. The participators were selected randomly, yet on one condition that they studied English as a subject at university at least for one term. So, none of them was completely ignorant of English and each of them can understand English words and sentences little or perfectly. The participants were not chosen before the study. While one answering the pre-test, others who wondered and came to look at it were told the study and given the pre-test to participate in the study if they liked. The participants were divided into two groups: Picture Group and Sentence Group. 10 participants were in the Picture Group and 10 participants were in the Sentence Group. So the numbers were equal.

Materials

Data collection tools were prepared in consideration of 20 target words which were: *Ajar, Bewildered, Bushy, Chimney, Judge, Escalator, Mushroom, Hail, Gulp, Pantry, Wrinkle, Nightmare, Hive, Pine, Roar, Hook, Slippers, Submarine, Torch, Wrestler.*

The words were selected according to popularity of words. They were taken from Harry Potter book series by J.K Rowling. e.g. "Hermione's hair was bushy again; she confessed to Harry that she had used liberal amounts of Sleekeazy's Hair Potion on it for the ball." (Harry Potter and the Goblet of Fire). They were not used often in everyday life, so great number participants had seen some words for the first time in their life. They tried to learn them during research.

There were a pre-test and a post-test which were the same. In the tests, there were target words which aimed to be translated by being written in blanks next to the related words, in Turkish.

20 colourful pictures which symbolized 20 target words were used for the Picture Group. The target words were searched on the internet to find related pictures so the pictures were downloaded on the internet. There were one picture for one word and words and pictures were related to each other. 20 English sentences and their translations (except the target words) that included target words, which were written with capital letters, were used for the Sentence Group. Sentences were made with the aim that the participants can understand or estimate the target words' meanings. So, they pointed out the target words.

Procedure

All participants were told what to do and given pre-test firstly. They were asked to write the Turkish translations or meanings of the target words next to the words, in the blanks. They did not have to fill in all of them. As soon as they had finished the test and gave it back, the Picture Group was given the paper which the target words and related pictures were on. They examined the paper and tried to learn the words in two minutes. And the Sentence Group were given the paper on which the sentences that contain target words and their translations (except the target words). They tried to learn the words while viewing the sentences in three minutes. Since the Sentence Group would have read the sentences, they were given longer time. After all the participants had finished investigating the paper and gave it back, swiftly they were given the post-test that were the same as the pre-test. So, the process lasted a few minutes dependent on participants' answering the tests. They wrote again the translations or meanings which they considered beforehand and learned while examining the paper. The outcomes from the pre-test and the post-test were compared in order to view the progress of vocabulary learning and differences between the development of the Picture Group and the Sentence Group.

Results

The results related to the distinctions between efficiency of pictures and sample sentences on vocabulary learning are presented in Table 1. and Table 2. Tables show how many words' Turkish translations or meanings each participant in the Picture and Sentence groups wrote correctly in the post-test and pre-test. Also, the tables show the increase which was seen with the results of the post-test, after the participants had been given the pictures and sentences with their translations. Primarily, the pre-test were examined and the number of correct answers was noted for each group. Afterwards, the post-test were examined and the number was noted again. Now that we saw no participant had lowered their correct answers, we excluded the each groups' results of pre-test from post-test results to see the increase.

Table 1. Pre-test and Post-test Evaluation According to Correct Answers of Picture Group

Pre-test	Post-test	Increase
2	8	6
2	14	12
2	12	10
0	4	4
1	4	3
0	2	2
8	16	8
12	18	6
6	10	4
0	4	4
Total: 33	Total: 92	Total: 59

Compared results of post-test and pre-test of the Picture Group showed that there was 29,5 per cent increase of vocabulary learning.

Table 2. Pre-test and Post-test Evaluation According to Correct Answers of Sentence Group

Pre-test	Post-test	Increase
14	18	4
11	18	7
7	16	9
7	12	5
5	16	11
10	18	8
1	3	2
9	17	8
5	11	6
2	7	5
Total:71	Total: 136	Total: 65

According to results of pre-test and post-test of the Sentence Group, it is seen that the participants made 32,5 per cent increase of vocabulary learning. In terms of distinction between two groups' increase, it is clear that the Sentence Group's progress is 3 per cent more than the Picture Group's, which is considered to be a slight difference.

Discussion

According to the results, as it was said before both pictures and sample sentences effects positively foreign language vocabulary. Every participant wrote correctly Turkish translations and meanings of words more in the post-test than they did in the pre-test. The distinction in numbers differs depending on their variables such as moods, interests, memory, brain lateralization...

Once more, we have seen that both pictures and sample sentences enable vocabulary learning on foreign language in different cases. However the question is which is more effective. The results are obvious to see the most effective way and the gap of effectiveness between two ways.

Shana K. Carpenter and Kellie M. Olson (2011) recorded that Swahili words were learned better from pictures than from translations in the study. Nevertheless, the recent study displayed opposite results compared to Carpenter and Olson's (2011) research. The reason may be difference between the languages since the participants were tested and they learned Swahili words in that research, not English. It may be because of the relation between words, sentences and pictures. It differs what a person sees in a picture and where s/he focuses. We must consider that in the main

study the participants had a background on the target language that was used while they had not in the study in 2011.

Participants of the Sentence Group made 3 per cent more progress than the ones of the Picture Group. The sentences were given with their Turkish translations except for the target words, which definitely influenced the results of the study. There is a question: Would the result be the same if the translations had not been given? It is possible researching on which more enables vocabulary learning, pictures or example sentences with their translations or example sentences without translations. 3 per cent is not a big gap between pictures and sample sentences, so we saw that there was not a big distinction between two ways, which revealed the other question of the study.

Conclusion

Based on the findings of the study, we are able to say that pictures which indicate to target words and sample sentences which include target words and translations except for the target words are efficient on foreign language vocabulary learning. All of the participants wrote correctly more words' meanings in post-test than they did in pre-test. However, participants who were in the Sentence Group increased 32,5 per cent the words they knew in pre-test while picture group did 29,5. There was 3 per cent gap that showed sample sentences' efficiency on vocabulary learning.

Of course pictures' positive effects on foreign vocabulary learning were approved again. But, considering the results of the recent study we can say that sample sentences are more efficient on foreign vocabulary learning than pictures.

It is important to state that there was not a big gap or difference between results of Picture Group's and Sentence Group's tests. 3 per cent may not be a big difference that may make educators, teachers or learners change their minds. Some of them prefer pictures while some prefer sample sentences or they prefer both. These two ways have been already used in order to learn language and vocabulary for years. And we can say they will be used for years again similarly to recent years.

It still remains as a question whether the results would be the same without translations of the sentences including target words. It is clear that translations enabled Sentence Group's participants to guess the meanings of the target words. Picture Group increased the words they knew 32,5 per cent more, but would it be possible if they had not gotten the translations?

Language learning is one of the main requirements today like it is said in a Turkish proverb: "One language, one person." We are aware of the importance of language learning. Thus, people use many ways to develop their foreign or second languages. Using sample sentences and pictures are one of these ways which used often. From elementary level to advance, people make use of them in language learning.

We examined to find which is more efficient on foreign language vocabulary learning. The results displayed that sample sentences with their translations are 3 per cent, which is a very slight difference, more effective than pictures on foreign language vocabulary learning.

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Appendices

Appendix 1

Lütfen aşağıdaki kelimelerin Türkçe karşılıklarını karşlarına yazınız. Karşılığını bilmediğiniz kelimelerin karşısını boş bırakabilirsiniz.

- | | |
|---------------|---------------|
| 1. Ajar | 11. Wrinkle |
| 2. Bewildered | 12. Nightmare |
| 3. Bushy | 13. Hive |
| 4. Chimney | 14. Pine |
| 5. Judge | 15. Roar |
| 6. Escalator | 16. Hook |
| 7. Mushroom | 17. Slippers |
| 8. Hail | 18. Submarine |
| 9. Gulp | 19. Torch |
| 10. Pantry | 20. Wrestler |

Appendix 2

Lütfen aşağıdaki cümlelerde büyük harflerle yazılan kelimelerin anlamlarını tahmin etmeye çalışın, fakat boşlukları doldurmayın. Şöyle ki boşluklar büyük harflerle yazılan kelimelerin dilimizdeki yerine geçmektedir. Bütün cümleleri okumak için toplam üç dakikanız var.

1. The door was AJAR so I heard what they said.

Kapı =====tı bu yüzden söylediklerini duydum.

2. I was BEWILDERED when John told me those incredible things.

John bana o inanılmaz şeyleri anlattığında çok =====dım.

3. Alicia's hair is so BUSHY. I think hair loss doesn't bother her at all.

Alicia'nın saçları çok ===== Sanırım saç dökülmesi onun için hiç sorun değil.

4. How does the Santa fit down the CHIMNEY when he enters houses?

Noel Baba evlere girerken =====ya nasıl sığıyor?

5. People at the court are waiting for JUDGE's decision.

Mahkemedeki insanlar ====='ın karar vermesini bekliyor.

6. There is not ESCALATORS in the mall, so we get into the elevator.

Alışveriş merkezinde ===== yok, bundan dolayı asansöre biniyoruz.

7. My mother can distinguish poisonous MUSHROOMS from non poisonous ones.

Annem zehirli ===== zehirli olmayanlardan ayırabiliyor.

8. It snows, rains and HAILS in winters.

Kışın kar yağar, yağmur yağar ve =====(yağar)

9. He poured himself a glass of coke and took a long GULP of it.

Kendine bir bardak kola doldurdu ve ondan büyük bir ===== aldı.

10. Foods are in the PANTRY, not in the kitchen, in Ronald's house.

Ronald'ın evinde yiyecekler mutfakta değil, =====de bulunuyor.

11. Ginny is 27 but she looks older because of the WRINKLES on her face.

Ginny 27 yaşında, ama yüzündeki ===== yüzünden daha yaşlı görünüyor.

12. Harry has NIGHTMAREs every night while sleeping and he cries.

Harry her gece uyurken ===== görüyor ve ağlıyor.

13. The bees which got out off their HIVE went towards flowers.

=====dan çıkan arılar çiçeklere doğru gitti.

14. Alltough it is winter now, PINEs are still green.

Kış olmasına rağmen ===== hala yeşil.

15. A lion's ROAR terrified some children at the zoo.

Bir aslanın ===== hayvanat bahçesindeki bazı çocukları korkuttu.

16. The pirate put his HOOK hand up and called to the crew.

Korsan ===== elini aldırdı ve tayfaya seslendi.

17. Molly's feet are always cold, thus her SLIPPERS are on her feet.

Molly'nin ayakları her zaman üşüyor, bu yüzden ===== hep ayaklarında.

18. When we are in a SUBMARINE and we can see fish passing by.

Bir =====nın içindeyiz ve yanımızdan geçen balıkları görebiliyoruz.

19. When the electricity goes off I take the TORCHEs and open it.

Elektrikler kesilince ===== alırım ve açarım.

20. He looks like a professional WRESTLER with his muscular physique and manner.

Kaslı vücudu ve tavırlarıyla profesyonel bir ===== gibi görünüyor.

Appendix 3

Lütfen aşağıdaki kelimelere ve resimlere bakarak kelimelerin anlamlarını tahmin etmeye çalışın. Kelimelerin hepsi için toplan iki dakikanız var.



1. Ajar



2. Bewildered



3. Bushy



4. Chimney



5. Judge



6. Escalator



7. Mushroom



8. Hail



9. Gulp



10. Pantry



11. Wrinkle



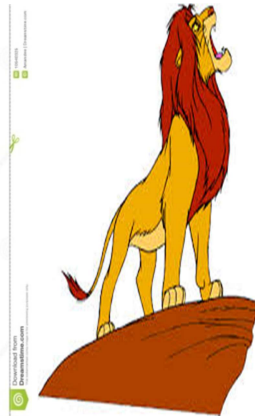
12. Nightmare



13. Hive



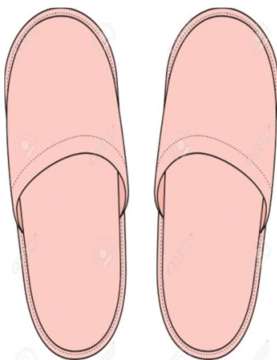
14. Pine



15. Roar



16. Hook



17. Slippers



18. Submarine



19. Torch



20. Wrestler