

# Vocabulary Learning Promotion through English Subtitled Cartoons

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**Abstract:** Conspicuously, the purpose of this study was to survey the impact of subtitled cartoons on vocabulary learning improvement among EFL learners. Furthermore, 40 upper-intermediate learners which were attending to English classes were chosen after taking a placement test as a proficiency to ensure their homogeneity. Participants were assigned into two experimental and control groups, namely: a first class received subtitled cartoons and the second class cartoons without any subtitles. The experimental group watched two cartoons with English subtitles according to the level of that class and the control group again watched those cartoons by turning off the Subtitles. Research included a pre-test and a post-test in both groups. Participants took a pre-test containing new words selected from the cartoons. After six treatment sessions, the post-test was administered to the groups. Data were analyzed and in order to find the differences between the experimental and control groups, the researcher conducted UNI-ANOVA and independent T-test. In conclusion, the findings showed that participants in the experimental group with subtitled cartoons performed significantly better and learned more new vocabulary compared to the control group. Subtitling was the significant type of enhancing learners' vocabulary knowledge.

**Keywords:** Visual Imagery or Movies, Incidental Vocabulary Learning, Intentional Vocabulary Learning

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## 1. Introduction

Employing cartoons and movies in order to progress the reception of new vocabulary is paid more attention by many learners and researchers. Moreover, so many researchers believe that cartoons and movies seem to provide a full context for new vocabulary learning. It is also believed that viewers are, generally, quite motivated to understand what are shown and said on movies (Danan, 2004). Vocabulary learning and acquisition is considered as one of the most significant skills in learning a second/foreign language (L2) because it has an effective role in developing L2 skills such as speaking and reading and, plays a great role in both English as a foreign language (EFL) learners and teachers. Suberviola and Méndez assert that vocabulary learning goes back to "the way words settle in the mind according to particular sets of semantic relations, so forming a mental dictionary". (2002, p. 237) The knowledge of how words are provided in our mental dictionary

significantly help language teachers to direct their teaching. Zhang (2009) mentioned that foreign language vocabulary learning is a time-consuming process in which learners must have both preparation and determination to win this long-lasting combat psychologically as well as compulsory.

Conspicuously, in order to practically use more methods to learn vocabulary, including the intentional (i.e., direct) and incidental (i.e., indirect) vocabulary learning methods. The only traditional way of memorization of L2 vocabulary with the translated equivalence might fail many EFL learners in internalizing words. In Zhang (2009) words, learners prefer the future of learning vocabulary in the process of applying them in contexts and do not like learning vocabulary only by rote memorization (parrot like learning).

Obviously, Suberviola and Méndez (2002) discuss, learning a word in isolation does not enable us to use it adequately as

words might need other particular words to accompany them. The different meanings of words cannot be completely understood if the words are not faced in different semantic and syntactic contexts (Read, 2004). The use of movies, in which auditory and visual stimuli are combined, might be one of the ways of providing context for vocabulary learning, hence a rich source for incidental vocabulary learning.

### **Research Question and Hypotheses**

For the purpose of this study, the following research question was posed:

*Research Question:* Do applying English subtitled cartoons have an obvious effect on the vocabulary knowledge promotion?

*Null Hypothesis:* Applying English subtitled cartoons do not have any obvious effect on the vocabulary knowledge promotion.

*Alternative Hypothesis:* Applying English subtitled cartoons do have an obvious effect on the vocabulary knowledge promotion.

## **2. Review of the Related Literature**

### **2.1. The Importance of Subtitles in Videos in Vocabulary Learning**

One possible problem of using movies for EFL learners is that authentic materials may not be easily comprehended by learners. They may come across some unknown words. What if captions are given?

A study was carried out in terms of preferred input mode and reading-while-listening was considered the most comfortable by the majority of subjects. (Brown et al. 2009) In order to assess the effect of subtitles in target language on vocabulary recognition, Stewart and Pertusa (2004) divided two Spanish films into segments. Then, they also divided seven intermediate Spanish conversation classes of English learners into two groups: showing each class one segment, 53 learners watched the segments of the Spanish films with Spanish subtitles, and 42 learners saw the same films subtitled in English. A multiple-choice test on a video film was administered to the participants before watching the films in order to measure their level of listening comprehension in Spanish. The results indicated that they were all at the same level. In addition, they were given a multiple-choice vocabulary pretest and post-test to measure the level of vocabulary learning. At the end of the study, they were also presented with a questionnaire to express their feelings about their experience. It turned out that there was a slight difference in the two groups' performance on the vocabulary post-test. However, the questionnaires showed that the learners who watched the segments with target language subtitles had better experiences with subtitling.

Sydorenko (2010) examined the effect of input modality (video, audio, and captions, i.e., on-screen text in the same language as audio) on (a) the learning of written and aural word forms, (b) overall vocabulary gains, (c) attention to input, and (d) vocabulary learning strategies of beginning L2

learners. Twenty-six second-semester learners of Russian participated in the study. Group one ( $N = 8$ ) saw video with audio and captions (VAC); group two ( $N = 9$ ) saw video with audio (VA); group three ( $N = 9$ ) saw video with captions (VC). All participants completed written and aural vocabulary tests and a final questionnaire. The results indicated that group with captions (VAC and VC) scored higher on written than on aural recognition of the word forms, while the reversed applied to the VA group.

The VAC group learned more word meaning than the VA group. Results from the questionnaire suggested that learners paid most attention to captions, followed by video and audio, and acquired most words by associating them with visual images. She concluded that captioned video tends to aid recognition of written word forms and the learning of word meaning, while non-captioned video tends to improve listening comprehension as it facilitates recognition of aural word forms. Lin (2006) investigated the effects of video-based computer assisted language learning (VBCALL) program on English learners' incidental vocabulary acquisition and the differences in vocabulary learning between English learners with high and low English reading and listening proficiency. The participants of the study were 82 university freshmen. Based on the results of an English proficiency test, three English proficiency groups were set up: (1) 44 participants with high reading and high listening English proficiency (the RHLH group), (2) 20 participants with high reading and low listening English proficiency the RHLL group), and (3) 18 participants with low reading and high listening English proficiency (the RLLH group). All participants completed five practice sessions, five vocabulary follow-up tests, and vocabulary pre- and post-tests. The results of Quantitative analysis demonstrated that RHLH, RHLL, and RLLH groups' vocabulary post-tests were both higher than those of their pre-tests. Paired *t*-test results show that RHLH and RHLL groups respectively performed significantly better in the vocabulary posttest. One-way ANOVA results demonstrate that in the vocabulary follow-up tests, the total scores revealed significant differences between the RHLH and RLLH groups.

### **2.2. Advantages and Disadvantages of Subtitles**

When captioning was first introduced for use in foreign language classrooms in the 1980s, it was thought to be a way to increase learners' attention, reduce anxiety, give students instant confirmation of their understanding of what was heard, and increase motivation (Froehlich, 1988; Vanderplank, 1988; Burger, 1989; Grimmer, 1992). According to Zanon (2006), subtitling enjoys many advantages; it motivates learners and makes them secure and self-confident. Besides, it can help language learners to monitor their speech and find new vocabulary. He also maintains that in spite of all advantages, the drawbacks of subtitling should not be overlooked. For instance, reading of subtitles may gradually become a habit and create a false confidence.

Stewart and Pertusa (2004) hypothesized that films subtitled in the target language are more appropriate foreign language learning tools for English learners although most English

instructors use English subtitled films in foreign language classes. They avow that one of the biggest drawbacks for English subtitling is the neglect of the listening skill. On the other hand, Bird and Williams (2002) and Schmidt (2007) maintain that one of the best ways of language learning is watching intra lingual subtitled programs. They state that because word boundaries are clear and there are no accent variations, language learners comprehend and learn language to a greater extent. To examine the effect of captioning on aural word recognition skills, Markham designed another experiment involving multiple-choice tests administered orally. 118 advanced ESL students watched two short video programs (12 and 13 minutes) with or without captions. In the subsequent listening tests, subjects heard sentences directly taken from the script and immediately followed by four single words (one key word which belonged to a sentence just heard and three distractors) presented orally too. The tests showed that the availability of subtitles during the screening significantly improved the students' ability to identify the key words when they subsequently heard them again. (Markham, 1999, pp. 323-4)

### 2.3. *The Effect of Subtitles on Language Learning*

Various studies have investigated the different aspects of the effect of subtitling on second/foreign language learning. Zanon (2006) investigated the contribution of computer-based subtitling to language learning and concluded that subtitling could motivate learners to appreciate the huge amount of content of the film that does not reach the audience when it is presented to them dubbed. In the same vein, Kusumarsdyati (2005) studied the effect of subtitled movie DVDs and found them an effective teaching device to develop the EFL learners' listening skills. Borrás & Lafayette (1994) incorporated subtitles into short video segments that were integrated into an interactive multimedia course. The participants were able to see and control a video segment with or without same language subtitles. Results indicated that having the opportunity to see and control subtitles positively influences both comprehension and production of language.

Grgurovic & Hegelheimer (2007) used a multimedia listening activity containing a video of an academic lecture to compare the effect of second language subtitles and lecture transcripts on the comprehension of the lecture. It turned out that students preferred subtitles and used them more than the transcript. To study the effect of subtitles on film understanding, Grignon, Lavaur, & Blanc (2005) compared three versions of a film sequence (that is, dubbed, subtitled, and original versions). They found that the dubbed and subtitled versions lead to better performance than the original version.

## 3. Methodology

### 3.1. *Design of the Study*

This research is a quasi-experimental research and includes a pre and post-test. Two cartoons which had English

subtitles were devoted to the experimental group, but to the control group those cartoons were devoted without any subtitles. Furthermore, 20 vocabulary items were chosen. Generally, according to Mayer (1999), one of the main principles in using multimedia in learning is to place words close to corresponding pictures on a page or present narrations concurrently with corresponding animations. Most of the target words were appeared in cartoons more than once. Both groups were given the same pre and post-test on the target vocabulary words but the format was different. The listening ability and improvement in the post-test of the participants were also compared. As the experiment requires students to watch and listen, it is obviously believed that there is a close relationship between reading and listening.

### 3.2. *Participants*

Participants of this study were 40 learners who were selected from a population out of 80 EFL learners studying English at Alborz Language Institute in Tabriz, Iran. To select two homogeneous groups in terms of English proficiency level, the researcher administrated a standard placement test as a proficiency test. It was administrated and learners were selected as the participants of the research as the upper-intermediate level. This way of the selection of subjects made us certain about their homogeneity. Then they were divided into two experimental and control groups, each included 20 learners. The participants aged from 14 to 19.

The first group which was named as an experimental group, 20 learners who watched the cartoons during six sessions of treatment by employing subtitled cartoons; while control group were not received any subtitle during the treatment. In order to identify the effect of cartoons and use of English subtitles on the learners' vocabulary improvement, vocabulary pre and post-tests were administered during the research to the learners. Each of the tests was consisted of 20 matching items and English vocabulary with their meaning in Farsi or synonyms. Each test was applied before and after training and exposing the learners to the cartoons. The reliability of each test was in order to KR-21 formula. At the end of the sixth session, in each class a vocabulary post-test was distributed to both groups and the results were compared in order to find the effects of using subtitled cartoons in vocabulary enhancement.

### 3.3. *Context of the Study*

This study was administrated in the Alborz English language institute which was located in Tabriz, Iran. The course books covered in this institute are *Hip Hip* series for elementary and *Speak Now and Interchange* series for upper-intermediate and advance levels. In this institute each period is held for 20 sessions and the learners receive 5 hours of English instruction in 3 days of a week. Besides, communication and speaking in English is the main goal noticed during the period.

### 3.4. Procedures

As it is obvious, this research was conducted in the specified class times in an English Institute in Tabriz. Randomly, the participants were divided into two groups after making them homogeneous by employing a placement test. One class was asked to watch cartoons by turning the subtitles on while the other class named as control group watched the cartoons by turning the subtitles off. During the treatment in each session, the researcher and participants devoted 60 minutes to watch the cartoons, practicing new words and pausing the cartoons while new words were shown, also discussing about that important parts of the cartoons with general words. Furthermore, after some sessions working on the learners which were exposed with English subtitled cartoons, the teacher took a vocabulary test consisting of 20 writing the definitions items. During the process teacher used many techniques to teach new vocabulary items; for example, giving synonyms and antonyms of a word or asking students to look up the new vocabulary in a dictionary, demonstration, and etc. After practicing and revising the new vocabulary items, a discussion was held with the learners about the theme of the cartoons. The teacher asked some questions fostering learners to use new vocabularies which they have learned to answer. Finally, the results of the tests were compared to each other in order to know the importance of subtitled cartoons.

## 4. Data Analysis and Results

### 4.1. Testing Procedures

Consequently, after administrating the test, each group's mean scores were calculated. Then, cartoons with and without subtitle were employed in experimental and control classes. Besides, the researcher applied descriptive statistics to find the mean, standard deviation, and range of scores. Finally, the results of tests, by using SPSS software made clear that which is more helpful for learners in responding to the questions compared to the other one.

### 4.2. Inferential Statistics for the Research Question

**Table 1.** Descriptive statistics of One-Sample Kolmogorov-Smirnov Test in experimental group.

		PRE	POST
N		20	20
Normal Parameters	Mean	13.8000	17.9000
	Std. Deviation	1.64120	1.83030
Extreme Differences	Absolute	.164	.159
	Positive	.164	.159
	Negative	-.102	-.162
Kolmogorov-Smirnov Z		.732	.721
Asymptotic Significance (2-tailed)		.661	.679

a Test distribution is normal

b Calculated from data

**Table 2.** Descriptive statistics of One-Sample Kolmogorov-Smirnov Test in control group.

One-Sample Kolmogorov-Smirnov Test-control			
		Pre	Post
N		20	20
Normal Parameters	Mean	13.4600	13.8600
	Std. deviation	1.93242	1.59853
Extreme Differences	Absolute	.143	.188
	Positive	.143	.164
	Negative	-.108	-.188
Kolmogorov-Smirnov Z		.636	.839
Asymptotic Significance (2-tailed)		.815	.480

a Test distribution is normal

b Calculated from data

After applying ANCOVA covariance analysis and according to the present information in Table 1. And 2., because all of data's mean are above 0.05, groups' normal distribution in the possibility of vocabulary knowledge in both pre and post-test are normal. To find the normal distribution of scores in the groups, the researcher used a One-Sample Kolmogorov-Smirnov Test and according to this test, level of significance should be above the 0.05, so vocabulary test score is more than 0.05 and as a result they are meaningful and the variables have distributed well. The results are expressed as mean  $\pm$  SD (N=20).

**Table 3.** UNIANOVA Results in Tests of Between-Subjects Effects in groups.

Tests of Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	Significance
Corrected Model	154.800	3	52.600	36.180	.000
Intercept	28.600	1	28.610	19.820	.000
Group	4.115	1	4.115	2.805	.104
Pre	55.300	1	55.300	37.700	.000
Group-pre	.350	1	.350	.235	.633
Error	52.807	37	1.470		
Total	9695.000	40			
Corrected total	208.600	40			

In table 3. the results of analysis in the same regression are pre requisite to covariance analysis and it has been proposed clearly. Based on mentioned results, mutual significance level is  $p=0.63$  which is above 0.05, so homogeneity hypothesis regression is accepted.

**Table 4.** UNIANOVA Results of Tests Between-Subjects Effects in groups.

Tests of Between-Subjects Effects						
Source	Sum of squares	df	Mean square	f	Significance	Eta squared
Corrected model	154.460	2	77.230	53.770	.000	.750
Intercept	27.300	1	27.300	19.000	.000	.340
Pre	58.360	1	58.360	40.630	.000	.525
Group	120.055	1	120.055	83.580	.000	.700
Error	53.450	38	1.440			
Total	9695.000	40				
Corrected total	208.600	40				

In table 4. the results of covariance analysis in post-test in learners' vocabulary knowledge by employing English training cartoon with subtitle has been proposed. According to the results obtained from above table  $p < 0.05$ ,  $df = 1$ ,  $F = 83.58$ , when pre-test results is omitted, the differences between groups are in 0.05 level. Besides, in table 1 and 2 and 3, it is clear that average of developing vocabulary knowledge by employing English training cartoon with subtitle in experimental group is more than control group, so experimental group after using English training cartoon with subtitle significantly compared to control group without using subtitles is noticeably prominent. Furthermore, employing subtitled English were effectual in learners' vocabulary knowledge enhancement.

In the present study, the significant level is  $p < 0.05$ . According to tables and based on the UNIANOVA which is used in this stage, it is observed that  $sig = .000$ , so it could be inferred that, noticeable differences exist among the experimental group scores. Therefore, the differences between groups are statistically significant and it means that the groups with different trainings performed differently after receiving distinct types of treatments.

Finally, the null hypothesis which states that it isn't possible to expand learners' vocabulary knowledge by employing English subtitled movies is rejected and the alternative hypothesis is confirmed. In statistics when the researcher reaches these results, it means that the researcher should reject the null hypothesis of the study and consequently confirm the alternative one.

## 5. Discussion and Conclusion

### 5.1. Summary of the Main Findings

The results of this study declares that subtitling is an efficient factor which has a high impact on vocabulary learning. The results shows some deficiencies in the capability to make distinguish between L2 words which can be a barrier for vocabulary learning among L2 students. The results of the present study also support the general idea that the students can acquire elements of a foreign language, including vocabulary, through watching subtitled cartoons or movies. As we discussed earlier, the conclusion of this research manifests that applying subtitled cartoons as educational tools in language teaching environments can motivate learners to receive the language through multisensory channels. Using subtitled cartoons would also

help language learners develop their knowledge of vocabulary. The role of captioned cartoons or movies in developing vocabulary has not been considered seriously in Iran. These findings might encourage learners to devote more time to watching subtitled TV programs including movies, cartoons and news in order to improve their overall language skills as well as their vocabulary knowledge.

Subtitled cartoons would also help language learners expand their knowledge of vocabulary. All the tests which were conducted separately were combined and considered as one single test, that is, the mean for the two tests scores of each learner was calculated and then the Independent Sample *t*-test was applied.

### 5.2. Discussion

The research question was concerned as the overall effectiveness of using English subtitled cartoons in vocabulary learning. English authentic cartoons help the learners to enrich their vocabulary knowledge due to they are really a series of dialogues set in different situations. Even a short part of a film can help the learners improve their vocabulary a great deal (Zarei, 2008, Zhang & Wu, 2011, 2011). Thus, comparing pedagogical group with authentic group showed that the authentic group learners were more successful in EFL learners' vocabulary learning (Zhang & Wu, 2008). Authentic materials such as cartoons and films engage the learners in activities; thereby reduce anxiety and affective filter which allow the acquisition to take place (Hayati & Mohammadi, 2009). Furthermore, the findings in almost all of the studies advocate the use of subtitles and indicate the helpfulness of them in learning a foreign language.

It is absolutely obvious that use of multi-media can raise the motivation of students to learn English. It is important to note that in the multimedia-enhanced intervention in this study, teacher guided students to acquire new words in English cartoons accompanied with subtitle and experience a taste of success in learning English through subtitled cartoons. According to the data collection in this research, it is certain that cartoons can facilitate a way of lifelong learning for students, something that students can achieve when they are on their own. But more importantly, education should optimize the effectiveness of using subtitled multi-media in teaching and learning.

Obviously, the results of this research are somewhat in line with the results of some previous researches (e.g., (Holobow

*et al.*, 1984)) in which the effect of mode of subtitles on vocabulary learning was investigated. They investigated the effect of watching TV programs on incidental vocabulary learning in three different conditions: standard subtitles, reversed subtitles and without subtitles. 45 participants randomly assigned to three experimental groups participated in their pretest-posttest design study. The results of their study demonstrated the relative superiority of reversed subtitled TV programs over standard subtitled and non-subtitled TV programs in terms of enhancing reader's learning of unknown words.

Additionally, according to the results, the mean scores of participants in all groups has considerably increased from pre-test to post-test. This means that participants in all groups had a better performance in post-test regardless of the type of cartoon subtitles they were exposed to during the treatment period. In other words watching cartoons with subtitles has a positive effect on incidental learning of new vocabulary (Neuman, 1990). This is in accordance with the findings of many previous studies in which the effect of watching cartoons with subtitles on improving vocabulary knowledge of learners was investigated (e.g. (Reese and Davie, 1987; Neuman and Koskinen, 1992; Jones, 2004).

Moreover, teachers should implement subtitled instruction to help less successful students learn how to use them throughout their learning efforts. Eventually, by taking all the above mentioned discussions into consideration, the following conclusion can be drawn about the issue that the goal of subtitled cartoons training for learners is to be self-directed and self-independent learners, so teachers must become knowledgeable about as many ways as possible and in order to introduce so many kinds of subtitle or other input methods to enhance the level of vocabulary in their minds.

In the future it is better for researchers to write more about subtitled method of acquiring target vocabulary, though the present research investigated the role of subtitled cartoons in promoting vocabulary knowledge in a quasi-experimental method, inferences can be drawn from results of this study are limited by the nature of the particular sample selected, which solely consisted of intermediate students of an institution. Further research can also explore the use of reversed or other ones by employing them, we can be familiar with the audio and also visual form of vocabulary is proposed to be considered as further research.

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