

A Study of Comparative Effects of Humorous versus Non-Humorous Text Types on Vocabulary Learning of Iranian EFL Learners at Two Proficiency Levels

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Abstract

The purpose of this study is to explore the effectiveness of utilizing humorous versus non-humorous texts on receptive and productive vocabulary learning. The research is also conducted to seek whether language proficiency of the participants would be a factor influencing the effectiveness of two types of treatments used in the study. The materials employed in the present study include 17 humorous and 17 non-humorous texts which contain the target words. 87 students at two proficiency levels participated in the study and almost half of them were exposed to the target words through humorous texts and the second half learned the words through non-humorous texts. The target words with their English definitions were presented to the participants. Each text was accompanied by some comprehension questions, either in the multiple choice format, fill in the blanks or open ended questions. Following the treatment, an unannounced immediate post-test was administered to measure the effectiveness of two text types on vocabulary learning. After a three-week interval, an unannounced delayed post-test was administered to check the efficacy of text types on long-term vocabulary learning. The findings suggest significantly better vocabulary learning both in immediate and delayed post-tests for the less proficient participants learning target words through humorous texts. However, in the case of the more proficient learners, it turns out that humor is considerable in long-term learning of the target words. Based on the results, it is recommended that teachers and materials developers include more elements of humor in the language classes and course books.

Keywords

Humor; Vocabulary; Reading Comprehension; Proficiency.

1. Introduction

Based on early humor research, it can be realized that humor has a beneficial role in exerting a positive influence on cognitive, socio-emotional and motivational

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dimensions of teaching and learning (Banas et al. 2011). The trends and approaches of second language teaching consider the affective side of learning as a crucial aspect. The concept of affective filter was first proposed by Dulay and Burt (1977) and it was incorporated by Krashen (1989). Krashen held the view that a high level of motivation and self-confidence was the outcome of a low affective filter and that our instructional goals should be directed toward supplying comprehensible input and constructing an atmosphere which encourages a low affective filter.

Humor can act as an effective means to reduce the affective barriers to learning. In the process of learning a foreign language, the learners might get discouraged by the challenges and difficulties. Here is the place where humorous content and class atmosphere can elevate students' motivation in EFL classes (Syafiq and Saleh 2012). Today's educators allocate a place to humor in class lectures and testing (Torok, McMorris and Lin 2004).

Looking at this issue from the language learners' perspective, they also show positive attitudes toward the use of humor in language classes (Barnes and Lock 2010). Teachers have been advised to introduce the element of humor to their language classes, but such recommendations have mostly been based on theory and assumption rather than empirical research (Reddington 2015). Thus, humor is an issue that deserves more attention as it is an essential element which can reduce barriers and increase motivation to learn a foreign language.

Some of the teaching approaches and educational methods and systems that are used in educational contexts are criticized by Prensky (2001) and Tapscott (1998). These scholars believe that the approaches and systems are no longer consistent with the beliefs and expectations of the learners, and they do not fulfill the varying social, intellectual, and motivational needs of the current generation of learners. Investigating the general impact of humor has been done extensively in the field of psychology and education. However, large-scale quantitative studies which address targeted-linguistic humor seem to be lacking (Askildson 2005).

Moreover, by reviewing the literature of humor in education and specifically in the realm of SLA, the present researchers discerned that some of the studies have been conducted using questionnaires or scales for self-reporting. The main weakness with using self-report as the data collection instrument is that the participants may over or under report the issue under the study. It is obvious that learning is a complex construct, and scales like self-report or questionnaires may fail to measure this construct (Wanzer et al. 2010). Thus, the purpose of the present work was to implement humor in learning vocabulary which is a

building block of a language and to realize if using humor can truly contribute to a better outcome in learning the words in an EFL setting.

2. Literature Review:

Receptive vs. Productive Distinction of Vocabulary Learning

A growing body of literature includes studies which assess the most effective and beneficial paths to learn vocabulary (Liu and Zhang 2018; Nie and Zhou 2017; Yu and Altunel 2018). Vocabulary knowledge is defined as the knowledge of words (Laufer et al. 2004; Milton 2009). Schmitt (2014) stated that vocabulary knowledge is more than just knowing the words, it includes understanding the various aspects of the process and vocabulary constructs. It requires the knowledge of the components of vocabulary, lexical organization, receptive and productive mastery and fluency.

Most prominent scholars in the field of ELT have agreed to divide vocabulary knowledge based on its use in the skills of speaking, listening, reading and writing. Thus, they have categorized vocabulary knowledge into two main classifications, which are productive and receptive vocabulary (Laufer 1998; Laufer and Paribakht 1998; Nation 2001; Read 2004; Schmitt 2014). The word “receptive” implies receiving input from other sources through reading or listening. The word “productive” implies producing language and conveying a message through speaking or writing.

Confining the receptive/productive distinction to vocabulary use, Nation (2001) states that receptive vocabulary use involves perceiving the form of a word and retrieving its meaning through reading or listening. Productive vocabulary use involves expressing a meaning and producing the suitable form of the word through writing or speaking. The focus of research on reception and production has been on two main issues; receptive and productive vocabulary size (Laufer 1998; Laufer and Paribakht 1998; Morgan and Oberdeck 1930; Waring 1997; Webb 2008; Yamamoto 2011) or whether receptive knowledge is acquired before productive knowledge (Aitchison 1994; Channell 1988; Melka 1997). According to Webb (2005) receptive and productive learning is an issue over which little research has been carried out. He believes that the studies about word pairs have shed light on the receptive and productive learning. Research results in this domain suggest that one of the determining elements which affects the type and level of knowledge is the type of learning i.e. whether it was productive or receptive learning. If target words are presented receptively to the learners, then they will gain receptive knowledge of the words, whereas productive presentation of the words, will contribute to productive knowledge of the words. This can justify the argument that language learners’ receptive

knowledge might be larger than their productive knowledge (Laufer 1998; Laufer and Paribakht 1998; Waring 1997).

Most of the studies which have investigated the receptive and productive vocabulary size of language learners have revealed that the size of receptive vocabulary exceeds that of productive vocabulary. For instance, Morgan and Oberdeck (1930) conducted the first study to explore the gap between receptive and productive vocabulary. They found out that the amount of receptive knowledge of the words in second language was higher than the amount of productive vocabulary knowledge. This finding conveyed the idea that receptive knowledge develops faster than productive knowledge for learners at lower levels of proficiency, but later in the process of language learning, the productive knowledge will have a significant increase, however it will never exceed the receptive one. Findings of some of the other similar studies supported these results as well (Fan 2000; Laufer 1998; Laufer and Paribakht 1998).

3. Theories of Humor

To define humor, one can come up with different definitions in different fields. But for the purpose of this study, humor is considered as any physical action or spoken statement intentional or otherwise that causes the students to react by laughing, giggling and/or smiling (Faulkner 2011). Reviewing the literature of humor and investigating the theories underlying this concept, three major theories will emerge: incongruity theory (Berlyne 1960), which focuses on the cognitive aspect of humor, arousal-relief theory (Berlyne 1969), which emphasizes the psychological and physiological arousal, and disparagement or superiority theory which assumes humor as an interaction between cognition and humor (Wolff, Smith, and Murray 1934). More recently, a novel theory has been introduced, developed and identified as the Instructional Humor Processing Theory (IHPT), (Wanzer, Frymier and Irwin 2010).

Incongruity theory explains how humor is understood rather than how humor works (Suls 1983). In the literature of humor, the term incongruity has been used in two different ways. The first use of incongruity is presenting a piece of information in a way to make it salient or distinct in the context and this distinctiveness helps retaining and remembering the information (e.g. Pillsbury and Raush 1943; Wallace 1965). The second use of the word incongruity concerns what makes humorous materials funny. When the incongruity is appropriate, and it makes sense, it contributes to the funniness of the stimulus (Summerfelt, Lippman and Hyman, 2010).

Superiority or disparagement theory is concerned with humor at social and behavioral level and as the title suggests, it is based on the presumption that

individuals tend to laugh at others' failures, inadequacies or errors (Wolff, Smith and Murray 1934). Arousal relief or arousal theory explains the psychological aspects of humor and justifies why a stimulus is perceived to be funny at mental levels. This theory, clarifies how learners' tension and anxiety which is generated as a result of their insufficient knowledge of second language rules, can fade due to the presence and use of humor in the context of classroom (Ziayeemehr, Kumar and Faiz Abdullah 2010). Instructional humor processing theory (IHPT) is based on the incongruity-resolution theory and the disposition theory. IHPT explains the issue that some types of humor used by the instructor influence students' learning positively and some of them influence learning negatively.

4. Studies on the Effect of Humor on Learning

Research in second language has indicated that both teaching and learning processes will benefit from competent use of humor (Ziv 1988). Although humor can be positively utilized in almost all of the academic disciplines, it will be specifically beneficial in teaching a second language (Bell 2009).

Schmidt (1994) investigated the effect of humor on sentence memory. Humorous sayings were collected by the researcher and a set of non-humorous version was developed. The researcher presented both humorous and non-humorous sentences to the participants and it was recognized that humorous sentences were better recalled than the non-humorous ones. Moreover, more words were recalled from the humorous sentences compared to the non-humorous ones. Results obtained from this study suggested that, participants who were exposed to humorous materials showed better ability in recalling the sentences and the words. A conducive study was carried out by Torok et al. (2004) on the effectiveness of humor as a teaching tool and also the relatedness of professors' and learners' perceptions of humor use in the classroom. The study showed that both professors and the students favored positive type of humor.

Askildson (2005) studied the pedagogical effect of humor on the language classes. He believed that the general pedagogical values of using humor are suited to any language class, specially the classes which are communicative. The findings of this study advocated the beneficial effects of pedagogical humor on language classes and confirmed the previous literature of this domain. The majority of the participants indicated that humor elevates the learning atmosphere in the class, reduces the level of anxiety among language learners and improves the level of interest. Moreover, participants of the study indicated a better language and culture learning as a result of employing target linguistic humor in the classes and this finding was in line with the findings of other similar studies (Berwald 1992; Deneire 1995; Trachtenberg 1979).

The present study is an attempt to explore the impact of using humor in texts on receptive and productive vocabulary learning of EFL learners. The theory based on which this study has been conducted is the incongruity theory. Incongruity is created by the punch line of the joke which introduces a concept or idea which is against the reader's or hearer's expectations. If the reader tries to resolve the ambiguity, then the incongruity is resolved, the joke is understood and as a result humor has worked (Schultz 1972). Addressing the purpose, the following research questions will lead this study:

- a. Do humorous texts or non-humorous texts affect learning the target words both receptively and productively by lower intermediate learners as measured by the immediate posttest of the study?
- b. Do humorous texts or non-humorous texts affect learning the target words both receptively and productively by lower intermediate learners as measured by the delayed posttest of the study?
- c. Do humorous texts or non-humorous texts affect learning the target words both receptively and productively by upper intermediate learners as measured by the immediate posttest of the study?
- d. Do humorous texts or non-humorous texts affect learning the target words both receptively and productively by upper intermediate learners as measured by the delayed posttest of the study?

5. Method

5.1. Participants and Setting

The present study was conducted in a private English language institute in Iran. The participants of the study, who were chosen by convenience sampling procedure, were 87 EFL learners with the age range from 18 to 30. The participants came from 6 intact classes who were taught by the same teacher. They were divided into two groups, a group learning the target words through humorous texts (experimental group 1) and a group learning the target words through non-humorous texts (experimental group 2). In each experimental group, there was a class of lower intermediate and a class of upper intermediate learners. From those 87 participants, data from 17 of them could not be used in the study.

5.2. Materials and Instruments

Materials collected to be used in the study, were mainly short stories, anecdotes or jokes selected from on-line sources. In order to make sure that the texts were humorous enough, and not to be subjective in the judgment about their humorousness, they were given to a group of 6 EFL experts to rate them on a scale from 1 to 5, 1 being non-humorous and 5 being more-humorous. After

checking the results, those texts which were scored higher than 3 were selected for the study. All of the selected humorous texts had to be changed into non-humorous texts, while maintaining the same content.

In order to prepare non-humorous texts, the punch lines of the humorous texts were modified in a way that the content and the actual story were reserved. Moreover, in order to make sure that the revised texts were natural, they were given to two native speakers in order to judge and rate them. Finally, the researchers had 34 texts to use in the treatment of the study, 17 humorous and 17 non-humorous ones. The humorous and non-humorous texts which included the targets words of the study, were used in both experimental groups.

In order to make sure that the difficulty level of the texts wouldn't affect learning the target words by lower intermediate learners, aside from the English definitions of the target words which were provided by the texts, the teacher of the class provided more help in case of any ambiguity. Moreover, the participants of the present study were all adults and the researchers were sure that they would cover the texts with the least effort.

5.3. Instruments

5.3.1. Pre-test

In order to select the target words of the study and prevent the effect of participants' prior knowledge of the words on the results of the study, a pre-test was administered. The instrument used for the pre-test was Vocabulary Knowledge Scale (VKS) which allows the participants to demonstrate how well they know items of vocabulary. The test was developed by Paribakht and Wesche (1993) and it was later expanded in other studies (Paribakht and Wesche 1996). This test is based on the notion that there are different levels of vocabulary knowledge and it is possible to identify different levels of knowledge (Read, 2007). The VKS is a common vocabulary test and it has been used by many researchers. According to this scale, there are five stages of vocabulary knowledge. Each stage is presented by a sentence and the test taker needs to check one of them. For some of the stages, the test taker needs to demonstrate his/her knowledge.

Before administering the pre-test, all of the humorous texts were presented to a pilot group consisting of 15 higher proficient EFL learners in the same institute. They were asked to go through the texts and underline the words which were unknown to them. The words that were selected as unknown by the pilot group were used in the pre-test, and were presented to all of the participants through VKS. After checking the results of VKS, the words that were known by even one of the participants were excluded from the study. Consequently, the final list of the target words was available to launch the treatment phase of the

research. In this study, the VKS was the only pre-test which was used. Most of the vocabulary studies show that it is standard practice to limit the pre-test to the vocabulary of the educational and instructional treatments (Nassaji 2003; Webb 2007).

5.3.2. Post-test

The posttests of the study were designed and developed by the researchers. Following the treatment of the study, an immediate and a delayed post-test were administered. The immediate posttest consisted of two sections: semi-productive and receptive. The delayed posttest had the same format. The tests were developed by the researchers and had a total number of 120 items. 60 items checked the participants' productive knowledge of the target words and 60 items checked their receptive knowledge.

The format of the semi-productive test was fill-in-the-blank and the format of the receptive test was multiple choice. The semi-productive section is called so, because words were presented in the word bank and the learners didn't have to produce them. Still participants had to use the correct form of the words and if they failed to do so, no score was allocated to that item. The Kuder-Richardson (KR) Formula 21 reliability coefficient was used to check the reliability of the posttests, showing reliability index of 0.72 which was considered to be satisfying.

5.4. Data Collection Procedure

As it was mentioned earlier, prior to launching the treatment phase of the study, the researchers collected the materials (humorous and non-humorous texts), selected the target words, and designed the posttests of the study. Both experimental groups were selected and the participants were introduced to the texts. Every session three or four texts were administered in the classes. The target words were underlined in the text and their English definitions were provided by the texts. The participants in experimental group 1 learned the target words through humorous texts and the participants in experimental group 2 learned the words through non-humorous texts. They had to go through the texts, learn the target words and do the comprehension questions. Each text was accompanied by some comprehension questions, either in the multiple choice format, fill in the blanks or open ended questions. These follow-up questions were designed so as to assure that participants would pay considerable attention to the texts and most importantly to the target words.

The treatment lasted for almost three weeks and all of the texts, the humorous and non-humorous ones were studied by the participants in each experimental groups. At this stage the assumption was that the participants in both

experimental groups have learned the target words in humorous or non-humorous texts.

The first session after the treatment phase was over; the unannounced immediate posttest was administered to the participants. The test consisted of two main sections. The first section contained 20 semi-productive items in the fill-in-the-blank format and the participants were allowed to answer the test items in 25 minutes. Right after this section was done, the participants were given the second section of the test which was the receptive test. This section contained 20 multiple choice items and they were required to check the correct answers in 20 minutes. After three weeks the unannounced delayed post-test was administered. Like the immediate test, this test had two main sections: semi-productive and receptive. To answer the questions, the participants had 45 minutes, 25 for the semi productive section and 20 minutes for the receptive section.

5.5. Data Analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS). In order to answer the research questions of the study, a two way ANOVA was run with alpha set at .05.

6. Results

6.1. Analysis for the Immediate Productive Post-Test

Descriptive statistics for immediate productive posttest are provided in Table 1. The statistical values for mean and standard deviation are reported in details in the table. The table shows the difference between the two experimental groups' mean scores in the immediate productive test. As it is observable, lower intermediate learners in the humorous group have a higher mean score ($M=14.82$). In order to see whether the difference which is observable between the means is statically significant a two-way ANOVA was run and the results are presented in Table 2.

Table 1: Descriptive Statistics for Immediate Productive Test

Experimental group	Proficiency Level	Mean	Std. Deviation	N
non-humorous	Lower intermediate	8.2778	4.40328	18
	Upper intermediate	13.0000	4.65027	17
	Total	10.5714	5.06014	35
Humorous	Lower intermediate	14.8235	3.45028	17
	Upper intermediate	12.8333	4.97346	18
	Total	13.8000	4.35755	35
Total	Lower intermediate	11.4571	5.12975	35
	Upper intermediate	12.9143	4.74882	35
	Total	12.1857	4.96157	70

According to Table 2, the calculated F (9.12) was significant at .05 alpha level. Moreover, the difference between total means of proficiency level is 2.74 and the calculated F (1.67) for the proficiency level was not significant. Also, the interaction between experimental groups (humorous and non-humorous groups) and the proficiency was calculated ($F(3, 66) = 10.10, p=.002$). According to the table, it was significant at .05 alpha level which is a noticeable point to consider.

Table 2: Tests of Between-Subjects Effects for Immediate Productive Test

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	412.004 ^a	3	137.335	7.045	.000	.243
Intercept	10467.819	1	10467.819	536.986	.000	.891
Experimental Group	177.885	1	177.885	9.125	.004	.121
Proficiency Level	32.628	1	32.628	1.674	.200	.025
Experimental Group *						
Proficiency Level	196.962	1	196.962	10.104	.002	.133
Error	1286.582	66	19.494			
Total	12093.000	70				
Corrected Total	1698.586	69				

6.2. Analysis for the Immediate Receptive Post-Test

Descriptive statistics are presented for the immediate receptive test in Table 3. A noticeable point in this table is that the calculated mean score for the upper intermediate ones in both humorous and non-humorous groups are close to each other.

Table 3: Descriptive Statistics for Immediate Receptive Test

Experimental group	Proficiency Level	Mean	Std. Deviation	N
Non-humorous	Lower intermediate	6.6111	3.58328	18
	Upper intermediate	11.0588	4.36564	17
	Total	8.7714	4.52500	35
Humorous	Lower intermediate	11.2941	4.23917	17
	Upper intermediate	11.3889	5.74086	18
	Total	11.3429	4.99378	35
Total	Lower intermediate	8.8857	4.52946	35
	Upper intermediate	11.2286	5.04734	35
	Total	10.0571	4.90455	70

Referring to Table 3, and taking a look at the mean scores, it can be inferred that the difference between the total mean score for the humorous and non-

humorous group equals 2.55 and the result of two way ANOVA reveals that the calculated F (5.28) was significant at .05 alpha level. Moreover, the difference in mean scores for the upper and the lower intermediate learners is 4.53 and according to Table 4, the calculated F (90.2) was significant. Moreover, the interaction between experimental groups (humorous and non-humorous groups) and the proficiency level was estimated and it was found to be significant, $F(3, 66) = 3.98, p = .05$.

Table 4: Tests of Between-Subjects Effects for Immediate Receptive Test

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	288.745 ^a	3	96.248	4.633	.005	.174
Intercept	7118.259	1	7118.259	342.667	.000	.838
Experimental Group	109.858	1	109.858	5.288	.025	.074
Proficiency Level	90.201	1	90.201	4.342	.041	.062
Experimental Group *						
Proficiency Level	82.830	1	82.830	3.987	.050	.057
Error	1371.026	66	20.773			
Total	8740.000	70				
Corrected Total	1659.771	69				

6.3. Analysis for the Delayed Productive Post-Test

Descriptive statistics for the delayed productive test are demonstrated in Table 5. These statistics are calculated for the delayed productive test for all the participants in the two experimental groups with two distinct proficiency levels. Like the immediate productive test, the mean for the participants' scores in the humorous group has the greatest value (13.41).

Table 5: Descriptive Statistics for Delayed Productive Test

Experimental Group	Proficiency Level	Mean	Std. Deviation	N
non-humorous	Lower intermediate	7.4444	5.04360	18
	Upper intermediate	10.1765	4.65343	17
	Total	8.7714	4.98283	35
Humorous	Lower intermediate	13.4118	2.95928	17
	Upper intermediate	11.0556	5.30784	18
	Total	12.2000	4.43117	35
Total	Lower intermediate	10.3429	5.09869	35
	Upper intermediate	10.6286	4.94729	35
	Total	10.4857	4.98910	70

Considering that the difference between total means for the experimental groups equals 3.43 and consulting Table 6, it is evident that the calculated $F(9.67)$ has been significant. In contrast to this finding, the difference in total mean scores for the proficiency level is 0.37. Referring to Table 6, it is evident that the calculated $F(.02)$ is found not to be significant. Moreover, the interaction between experimental groups (humorous and non-humorous groups) and the proficiency level was calculated and it was shown to be significant, $F(3, 66) = 5.34, p = .02$.

Table 6: Tests of Between-Subjects Effects for Delayed Productive Test

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	319.509 ^a	3	106.503	5.028	.003	.186
Intercept	7743.634	1	7743.634	365.585	.000	.847
Experimental Group	204.903	1	204.903	9.674	.003	.128
Proficiency Level	.617	1	.617	.029	.865	.000
Experimental Group *						
Proficiency Level	113.177	1	113.177	5.343	.024	.075
Error	1397.977	66	21.181			
Total	9414.000	70				
Corrected Total	1717.486	69				

6.4. Analysis for the Delayed Receptive Post-Test

The final table of descriptive statistics is devoted to the data obtained from the delayed receptive test. The statistical values for mean and standard deviation are provided in Table 7. Table 7 shows the difference between the two experimental groups' mean scores in the delayed receptive test. As it is observable, upper intermediate learners in the humorous group have a higher mean score ($M=11.50$). In order to see whether the difference which is observable between the means is statically significant, the last set of two-way ANOVA was run.

Table 7: Descriptive Statistics for Delayed Receptive Test

Experimental Group	Proficiency Level	Mean	Std. Deviation	N
non-humorous	Lower intermediate	6.0000	2.63461	18
	Upper intermediate	9.7647	4.27974	17
	Total	7.8286	3.96667	35
Humorous	Lower intermediate	9.7059	3.58407	17
	Upper intermediate	11.5000	5.22719	18
	Total	10.6286	4.53150	35
Total	Lower intermediate	7.8000	3.61207	35
	Upper intermediate	10.6571	4.80161	35
	Total	9.2286	4.45646	70

Based on the descriptive statistics (Table 7), the difference between total means of humorous and non-humorous groups for the delayed receptive test is 2.80 and according to Table 8 the calculated $F(7.90)$ was significant. Moreover, the difference between total means of proficiency level is 5.56 and the calculated $F(8.24)$ for the proficiency level was significant at .05 alpha level. Furthermore, the interaction between experimental groups (humorous and non-humorous groups) and the proficiency level was calculated and it was not found to be significant, $F(3, 66) = 1.03, p = .31$.

Table 8: Tests of Between-Subjects Effects for Delayed Receptive Test

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Square
Corrected Model	289.255 ^a	3	96.418	5.886	.001	.211
Intercept	5974.975	1	5974.975	364.770	.000	.847
Experimental Group	129.422	1	129.422	7.901	.006	.107
Proficiency Level	135.079	1	135.079	8.247	.005	.111
Experimental Group * Proficiency Level	16.975	1	16.975	1.036	.312	.015
Error	1081.000	88	12.284			
Total	7332.000	92				
Corrected Total	1370.255	89				

7. Discussion

In this study, the comparative effects of two text types, humorous versus non-humorous, on receptive and productive vocabulary learning of Iranian EFL learners were analyzed and the results indicated that humorous texts worked best for less proficient learners. It shows that if target words are presented by using humor (in text), the productive and receptive learning of those words would be higher compared to a context in which target words are presented through non-humorous texts. Moreover, the findings indicated that humor affects both short term and long term retention of the target words as shown in the immediate and delayed posttests of the study.

These findings are in line with myriad of previous studies which had investigated the effects of humor as a memory aid on learning the newly taught materials (Aboudan 2009; Askildson 2005; Berwald 1992; Deneire 1995; Ghaffari 2010; Sambrani et al. 2014; Trachtenberg 1979). In fact, the effect of humor on memory is an indirect one, which occurs as a result of creating a moderate level of arousal. When participants attempt to make sense of a humor stimulus, their effort in doing so, may contribute to moderate levels of arousal and this function of humor enhances memory (Lippman and Tragesser 2005).

More specifically, the findings of this study confirm what was observed from an experiment by Schmidt (1994) which revealed that course contents introduced and taught through humorous materials receive both increased attention and rehearsal on the part of the learners as compared to the context in which they are presented through non-humorous materials. Language teachers need to consider the fact that using humor in the classes will not undermine the seriousness needed to manage the class. Thus, adding humor as one of the components of language teaching, will lighten the mood, lower the tension in the classroom, and relieve stress (Askildson 2005).

The findings of this section of our study align with the findings of the study conducted by Schmidt and Williams (2001) which explored the effect of humor on memory and found out that the participants were able to recall the gist of the materials presented in a funny way compared to the ones presented in a serious fashion. Lippman and Dunn (2000) found convincing evidence in favor of humor and its impact on enhancing memory. Over all, these research findings suggest that humor can serve as a memory aid or a mnemonic technique which helps transferring and storing the information in the short and long-term memory of the learners.

Considering the proficiency level of the language learners, it was found that humor works better for the lower intermediate learners in both immediate and delayed productive and receptive tests. This finding is in contrast with the assumption that at lower stages of language learning receptive vocabulary exceeds that of productive vocabulary. As the findings of the study by Morgan and Oberdeck (1930) revealed, for the less proficient language learners receptive knowledge increases faster than productive knowledge and later on, as the language learners are exposed to more vocabulary input, in the process of learning the language, productive knowledge will grow faster, still it may stay at lower levels than receptive knowledge of words.

Research in second language acquisition has shown that most of the beginner language learners have the fear of accomplishing the burdensome task of learning a new language which has a totally different system from their mother tongue. Thus, the importance of removing all these barriers and affective filters to learning is called for. Consequently, other possible reason for the effectiveness of humorous texts in learning vocabulary for the lower intermediate learners might be due to the impact of humor on decreasing language learners' affective filter. Appropriate use of humor has the potential of humanizing, illustrating, encouraging and reducing anxiety (Torok et al. 2004). With regard to the use of humorous materials, care must be taken while selecting and introducing the materials to language learners. Due to the fact that negative humor may affect

motivation and learning in a negative way (Wanzer et al. 2010). Thus teachers must keep away from ethnic, religious or culture related themes in humorous materials. Moreover, incorporating humor in materials such as word plays, funny stories, or content related jokes, will enhance language learners' (socio) linguistic and sociocultural competence (Ziayeemehr et al. 2010).

One of the underlying elements of humor is incongruity-resolution. That is, any humor stimulus contains some kind of incongruity that must be resolved so that the reader or hearer can make sense of it. A justification for the contributory effect of humor on learning is the increased processing and recall, which is the outcome of increased motivation for resolving the incongruity inherent in the information. Learners will pay more attention to the incongruent information, since they do not conform to their common schemata. (Baker and Petty 1994; Hastie and Kumar 1979; Maheswaran and Chaiken 1991; O'Sullivan and Durso 1984; Srull 1981). This widely believed function of humor might be the reason for the participants' success in the experimental group one, who were exposed to target words through humorous texts.

More importantly, based on the results obtained so far, the idea proposed by Schmitz (2002) with regard to the most appropriate stage and time for implementing humor in language learning is corroborated. He believes that humor must be included in the discourse from the beginning stages of language learning. He further notes that humorous materials chosen to be utilized, must improve the linguistic competence of language learners, and implementing humor in the materials must begin with universal humor and move toward specifically content related humor.

Research questions three and four investigated the effect of two types of treatments of the study on receptive and productive vocabulary learning of upper intermediate participants and the results obtained from these learners were remarkably different from the ones gained from lower intermediate learners. The findings revealed that exposing upper intermediate language learners to target words through humorous texts seemed to have no differential effect compared to introducing the target words through non-humorous texts in the immediate posttest of the study. However, it was demonstrated that in the delayed posttest of the study, the participants in the experimental group one, had performed better, but not significantly better than the participants in the experimental group two. It means that humor appeared to have moderate effect on vocabulary learning for upper intermediate learners in the delayed posttest of the study.

One of the factors to examine in this study was the difference in language learners' proficiency and its relation to the effect of humor on vocabulary

learning. We need to consider the fact that English proficiency of the language learners is an important variable in their appreciation of humor. More proficient learners have a better understanding of the use of humor compared to less proficient learners (Neff and Rucynsky 2017). A possible reason for the better performance of upper intermediate learners in the delayed posttest might be ascribed to the rehearsal of the humorous jokes in the time period between immediate and delayed posttests, since humor effects might operate through the basic memory tactic which is rehearsal. If language learners enjoy a joke or a punch line of a joke, they tend to memorize it in order to retell it later. Thus researchers assert that humor may prompt additional rehearsal of the humor stimulus (Summerfelt et al. 2010). In the case of the present study, it seems plausible that some kind of rehearsal might have taken place during the time interval between immediate and delayed posttests and that is why participants in the humorous group have outperformed their counterparts in the non-humorous group.

Furthermore, the affective barriers to learning a second or a foreign language might be higher in the beginners and lower intermediate learners and humor can act as a medium for lowering the emotional barriers and filters to learning by reducing tension, anxiety, fear and improving motivation on part of the language learners. In the case of upper intermediate learners, it seems that their higher exposure to the new language and their more opportunities to learn it, have removed these barriers, thus humor might be an element functioning beside other present elements in the class. That is why presence or absence of humor in the vocabulary learning procedure has not produced significant difference for the upper intermediate learners.

8. Conclusion

The general finding of the study which indicated the contributory effect of humor on learning is in line with a flurry of similar studies (e.g. Askildson 2005; Berwald 1992; Deneire 1995; Garner 2006; Ghaffari 2010; Trachtenberg 1979). This study revealed that the lower intermediate learners significantly outperformed the upper intermediate participants in both receptive and productive vocabulary learning. It was also revealed that humor works best for the lower intermediate learners. Based on the obtained results, it is highly recommended to provide humorous related materials for the learners, especially beginners and lower intermediate ones, simply because humor has the potential to reduce tension and anxiety and relieve stress. Negative humor may affect motivation and learning in a negative way (Wanzer et al., 2010). Thus care must be taken while selecting and introducing the materials to the language learners.

Teachers must keep away from ethnic, religious or culture related themes in humorous materials.

Materials developers should implement humor in the course books from the beginning stages. The findings of this study have shed light on the issue that even less proficient language learners can make sense of humorous stimuli and will appreciate them. According to Schmitz (2002), materials developers must consider the fact that humor must be incorporated in the course books in a pre-determined fashion. Thus, it is better to introduce universal humor at the beginning stages and later, move on to more content related humor. Further research is called for to confirm the findings of the present study and also to engage other aspects of the studied issue.

One of the limitation of the study was that the focus of this study was on the receptive and productive vocabulary learning. It would be possible to obtain more comprehensive results if other aspects and dimensions of vocabulary knowledge were taken into consideration. Moreover, the present study was conducted in a private English institute in Iran, and contained a limited number of participants which would inevitably hinder the generalization of the findings of the study. Utilization of humor may have constructive effects on other aspects of word knowledge such as collocations, grammatical functions, etc. Thus it is recommended to be investigated by the researchers and scholar interested in studies related to vocabulary and humor. It is strongly assumed that humor implemented in teaching other linguistic components such as phonology or structures can be of great benefits. In order to check the validity of this assumption, further investigation is needed.

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