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## The Effects of Text Type, Text Length and Text Difficulty on Vocabulary Retention through Glossing

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### ABSTRACT

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Vocabulary plays a pivotal role in the EFL classrooms, but the outcome for recalling the vocabulary items are not satisfactory. As a result, the current study aims at examining the effects of glossing on different types of texts with different difficulty levels and varying lengths on vocabulary retention. In a quasi-experimental within subject design two types of text, namely, expository and narrative, three difficulty levels of easy, standard and difficult and two text lengths, including short and long were utilized. Forty-one participants were exposed to the 12 texts and then took the post-test. Repeated measures ANOVA indicated that there were significant differences in vocabulary retention of students ( $F 7.72$ ),  $p = .05$ . The findings of post-hoc analysis Tukey test indicated that the texts which were short with regard to length, easy with regard to difficulty, and expository with respect to type helped students retain the glossed words better than other texts.

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Vocabulary learning is an essential part of language learning. Due to its crucial role in language learning classroom teachers should take a comprehensive approach to vocabulary development in order for students to reach a higher level in their development. Researchers also should propose different ways for enhancing vocabulary learning and retention. Researchers consider that one of the most efficient ways for vocabulary learning and retention is through extensive reading. For example, Pitts, White, and Krashen (1989) agree that reading is an important source of vocabulary acquisition (as cited in Waring & Takaki, 2003). Some researchers mentioned the merits of extensive reading. Huckin and Coady (1999) for example, pointed out that vocabulary learning through reading is pedagogically efficient, and it is more individualized and learner-based (cited in Zarei & Hassani 2011, p.2). Researchers have also suggested some other ways to promote vocabulary gains in incidental vocabulary learning that is while reading: the use of a dictionary, guessing from context, glosses, and so on.

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But, the large amount of unfamiliar words in reading situations can be discouraging for many learners, because they have to read both for meaning and word acquisition simultaneously and this would be an enormous task for them to accomplish. So, something that reduces the burden from students' shoulder can help them do both tasks more efficiently. This calls for students to plan and try to solve this significant issue in ESL and EFL situations.

To relieve the situation many researchers propose glossing. For example Nation (1983, 1990) cites four advantages of glossing. First, glossing supplies readers with instant knowledge about the meanings of words. Second, glosses lessen the disruption of the reading process. Third, glosses make students less dependent on the instructor and fourth, glossing allows for greater individualization. Guidi (2009) believes that glossing contributes to comprehension because; knowledge of each word is used to construct an understanding of the overall text. But what is glossing, and how can it help students learn new words, while taking care of the meaning in reading contexts? ; And what are the theoretical justifications for applying it?

Glossing is defined in different ways; Stewart and cross (1991) defined it as adjunct aids and believed that glossing is being used to designate and describe the systematic use of marginal notes and other extra-text notations to direct readers' attention while they read, or Lomicka (1998) defined glosses as "short definitions or notes in order to facilitate reading and comprehension processes for L 2 learners" (p. 41).

There are some hypotheses that support the use of glossing in EFL and ESL situations including: comprehensible input hypothesis by Krashen (1982), noticing hypothesis by Schmidt, Lightbown and Spada (2006), involvement load hypothesis by Hulstijn and Laufer (2001), dual-coding hypothesis (Paivio, 1971, 1986, 1991) and mental effort hypothesis by Hulstijn (1992). There are some other reasons for using glossing besides theoretical aspect. For example, the students' willingness is one of them. Students appear to want glosses, as was found in two studies in which U.S university L2 students were asked whether or not they wanted their texts to be glossed (Holley, 1971).

In the previous studies of glosses many researchers examined the effects of glosses on vocabulary learning and retention. Hulstijn, Hollander and Greidanus (1996) have examined the effectiveness of glosses on incidental vocabulary learning. They studied the influence of marginal glosses, dictionary use, and the reoccurrence of unknown words in incidental vocabulary learning. The participants read a short text that had been modified under one of three conditions: marginal glosses (L1), bilingual dictionary use, text-only (no glosses and no use of a dictionary). After analysis they found that marginal glosses (L1) were more effective than bilingual dictionary use or a text-only condition.

Similarly Watanabe (1997) investigated how text modification and the task would affect incidental vocabulary learning. This study, which was carried out with Japanese university students, indicated that the use of L2 glosses in the texts helped the participants retain more vocabulary compared to when they worked with texts containing no modifications, or appositives. Wang (2005) attempted to examine the effects of devices such as single glosses and multiple-choice glosses in reading text on vocabulary learning. The findings revealed that glossed text either aided by single glosses or multiple-choice glosses were better understood.

Fang (2009) wanted to see whether Chinese EFL learners at a low level benefit from incidental English vocabulary acquisition through reading aided by glosses or not. Fang also aimed to investigate the effectiveness of L1 Chinese and L2 English glosses in incidental vocabulary learning through reading. The results of pre-test, post-test and face-to-face interview showed that all of the students benefit from glosses both in L1 and L2 to some extent. In his dissertation Huang (2010) investigated the effects of output stimulus tasks and glosses on L2 incidental vocabulary learning. The results revealed that language learners who were provided with textual glosses gained more vocabulary than those who had no access to glosses. In other words glossing was effective. These studies have proven the facilitative

effects of glossing on vocabulary learning and retention on different conditions, but none of them tried to consider text as one of the variable that can affect the role of glossing on vocabulary learning.

## 2. Purpose and Significance of the Study

Among the abundant studies conducted regarding glossing and its impact on reading comprehension and vocabulary learning and retention you can hardly see a study that investigate the effects of glossing in different types of texts. Therefore, the current study aimed to examine the effects of glossing when used across different types of texts with varying lengths and difficulty levels on vocabulary retention. Two types of texts employed in this study were narrative and expository and each had different lengths and different difficulty levels. So, there were 12 different texts. To look into the effects of the variables, the performance of students was compared to demonstrate in which type of text, in which difficulty level and in which length the students performed better and retained more vocabulary items.

The findings might help all classroom practitioners to use glossing in its most effective style and would tell them which texts lend better to glossing when used for vocabulary retention. The results further might help teachers to compare the effectiveness of glossing on different text with different difficulty levels. The findings also might assist learners develop their reading and vocabulary retention skills by indicating how they can retain more vocabulary, if they use the types of texts that the participants in this study performed better on them. The findings also might aid learners, teachers, material providers, and parents, not to waste their precious time and money by using glossing in a way that is not effective for them. If the current study indicates that an expository text is more effective in using glossing than a narrative text, then it will be a waste of resources trying it. At the end of this paper a gap in the glossing literature will be filled with and other researchers can use the findings for improving the glossing effectiveness.

## 3. Research Questions and Hypotheses

There are three research questions left unanswered by previous research on glossing including:

1. In which types of glossed texts, students retain vocabulary better? In other words, which text types respond better to glossing when the purpose is vocabulary retention?
2. Does the text length have any effect on vocabulary retention when glossing is used?
3. Do texts with high levels of difficulty respond better to glossing or texts with low levels of difficulty in helping students retain vocabulary items? To put it another way, does text difficulty have any effect on vocabulary retention through glossing?

Due to lack of research in these areas, the researcher prefers null hypotheses. They are linked to the selected variables and include:

1. Text type does not have any significant effect on vocabulary retention through glossing.
2. Text length does not have any significant effect on vocabulary retention through glossing.
3. Text difficulty does not have any significant effect on vocabulary retention through glossing.

## 4. Method

### 4.1. Participants and Design

Sixty intermediate participants took part in this study. They were studying English in a language institute in Mashhad, Iran. After administering the TOFEL test, 41 of the participants were considered homogeneous and received the treatments (glossed reading texts). Quasi-experimental within subject design was employed, so repeated measures could be obtained from the participants on each 12 text.

## 4.2. Instruments

### 4.2.1. Reading texts

Based on the variables, twelve reading passages were selected. The variables were text type, text length and text difficulty, then the selected texts had to adjust to the variables. To this end, six texts were expository in type and the remaining six texts were narrative and each of these texts had two levels of length, including, short and long and three levels of difficulty including, easy, standard and difficult. The texts below 200 words were considered as short and texts above 300 were considered as long and the difference between 200 and 300 was set as the safety margin, because there was no exact criterion on the literature about the text length. For text difficulty the Flesch Reading Ease Readability Formula as one of the most important formulas was employed. The 12 texts based on our variables are presented in Table 1.

Table 1

Text Types

Expository	Narrative
1.Short easy expository	1.Short easy narrative
2.Short standard expository	2.Short standard narrative
3.Short difficult expository	3.Short difficult narrative
4.Long easy expository	4.Long easy narrative
5. Long standard expository	5. Long standard narrative
6. Long difficult expository	6. Long difficult narrative

### 4.2.2. TOFEL vocabulary test and target words

The vocabulary section of the TOFEL test was used as the first pre-test to determine the homogeneity of the students. It had 27 items and was administered to decide which students were at the same proficiency level. The jmi to see whether they were familiar with them or not. This decision was reached in light of the selection criterion adopted in Watanabe's (1977) study (as cited in Wang, 2005). Based on this criterion, it was suggested that the target words should be unfamiliar to the target students. If more than 20 percent of the participants knew a word, it would be wiped out from the target word list. After administering the pre-test it was found that the participants knew 30 percent of the words of the pre-test (48 out of 156), so they were removed from the glossing word list.

### 4.2.3. Vocabulary retention test (post-test)

The post-test was included 108 items and was comprised of four main sections including choosing the best answer, fill-in the blank items, choosing the best word that corresponds to the target word and choosing the word closest in meaning to the word surrounded by an apostrophe. The main purpose was to see in which type of text with what length and difficulty level glossing was more effective. To this end, the vocabulary retention test was composed of the words that had been glossed in the reading passages to measure their effectiveness.

## 5. Procedure and Data Analysis

After developing the materials and finding the participants, the first pre-test that was the TOFEL test was administered to determine the homogeneous students. Then, the second pre-test that was a list of words was presented to students to get the target words for utilizing them in the glossing of the texts. Then selected texts with the target words being glossed according to the results of the pre-test were presented to participants. Finally the vocabulary retention test was administered to measure students' retention of the glossed words. To look into the effects of our variables, the performance of students was compared to demonstrate in which types of texts with which difficulty levels and which lengths the students did better.

In order to examine the role of text type, text length, and text difficulty in vocabulary learning, repeated measures ANOVA, was employed. To check the normality of the distribution, two common tests of normality and skewedness and kurtosis statistics were taken into account. The tests were Kolmogorov-Smirnov and Shapiro-Wilk. Then to understand the specific effects of each variable on vocabulary retention and to see the exact place of difference post-hoc analysis Tukey test was run.

## 6. Results

### 6.1. Pre-test Results

Two pre-tests were employed in this study, one for ensuring that the glossed words were new to the students and they did not have prior knowledge about them and the second pre-test which was the vocabulary section of a sample TOFEL test was administered to determine the homogeneity of the students. Sixty participants took part in this study. Tabulation of the results is presented below. Table 2 summarizes the scores with their frequencies in which they occur.

Table 2  
Pre-test Scores

Scores	Frequency	Percent	Valid Percent	Cumulative Percent
.00	2	3.3	3.3	3.3
1.00	5	8.3	8.3	11.7
2.00	6	10.0	10.0	21.7
3.00	5	5.0	5.0	26.7
4.00	2	3.3	3.3	30.0
5.00	6	10.0	10.0	40.0
6.00	7	11.7	11.7	51.7
7.00	3	5.0	5.0	56.7
8.00	3	5.0	5.0	61.7
9.00	4	6.7	6.7	68.3
10.00	3	5.0	5.0	73.3
11.00	3	8.3	8.3	81.7
12.00	3	5.0	5.0	86.7
14.00	1	1.7	1.7	88.3
15.00	2	3.3	3.3	91.7
17.00	1	1.7	1.7	93.3
19.00	3	5.0	5.0	98.3
20.00	1	1.7	1.7	100.0
Total	60	100.0	100.0	100.0

To investigate the effects of the variables, the study required a group of homogenous students. As Table 3 indicates the mean score of the participants is 7.43 and the standard deviation is 5.1. The standard deviation of a group of 60 participants is too large. This indicates that the participants were not homogeneous. If this group of heterogeneous students were selected as participants, the researcher could not attribute the observed differences at the end of the study to the effects of the selected variables and the results would not be valid. So there was a problem regarding the proficiency levels of the participants.

Table 3  
Pre-test Statistics

<b>Statistical Analyses</b>	
N= 60, Missing= 0	
Mean	7.43
Std. Error of Mean	.67
Median	6
Mode	6
Std. Deviation	5.19
Variance	26.99
Minimum	.00
Maximum	20
Sum	446

In order to solve this problem, students within one standard deviation below and above the mean were considered homogeneous. This way, out of 60 participants 41 could satisfy the homogeneity criterion and were included in the study. This group of homogeneous students was selected for doing the rest of the study and received treatment texts and the subsequent post-test.

### 6.2. Post-test Results

In order to examine the effects of text type, text length, and text difficulty on vocabulary retention, repeated measures ANOVA was employed. First, descriptive statistics were reported for the twelve texts (Table 4). To check the normality of the distribution, two common tests and skewedness and kurtosis statistics were taken into account. The tests were Kolmogorov-Smirnov and Shapiro-Wilk. The results are presented in table 4 and 5. Regarding the results of the normality tests, as Table 5 displays, the estimated p-value test for all the tests was greater than 0.05 which indicates that the data had normal distribution. To take in a normal distribution, the statistics should be within the range of -2 to +2. As Table 4 indicates, all these statistics are within the range of -2 to +2; therefore, all the texts had a normal distribution and the results of the normality tests are corroborated.

Table 4  
Descriptive Statistics

	N	Min	Max	Mean	SD	Skewedness		Kurtosis	
							SE		SE
short easy expository(T1)	41	1.00	9.00	4.26	2.12	.52	.36	-.24	.72
short easy narrative(T2)	41	1.00	8.00	3.90	1.85	.29	.36	-.61	.72
long difficult expository(T3)	41	1.00	7.00	3.43	1.37	.464	.36	-.08	.72
long standard expository(T4)	41	1.00	7.00	3.36	1.71	.553	.36	-.31	.72
short standard expository(T5)	41	1.00	7.00	3.17	1.67	.29	.36	-.92	.72
long easy narrative(T6)	41	1.00	6.00	3.00	1.48	.53	.36	-.62	.72
long easy expository(T7)	41	1.00	6.00	2.97	1.21	.40	.36	.46	.72
long standard narrative(T8)	41	1.00	6.00	2.80	1.41	.52	.36	-.47	.72
long difficult narrative(T9)	41	1.00	6.00	2.73	1.32	.38	.36	-.44	.72
short standard narrative(T10)	41	1.00	6.00	2.43	1.44	.67	.36	-.63	.72
short difficult expository(T11)	41	1.00	6.00	2.17	1.43	1.46	.36	1.71	.72
short difficult narrative(T12)	41	1.00	5.00	1.95	1.18	1.14	.36	.46	.72

Table 5  
Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
short easy expository	.20	41	.14	.92	41	.12
long standard expository	.19	41	.15	.92	41	.13
short difficult expository	.25	41	.18	.77	41	.14
long difficult expository	.18	41	.14	.94	41	.18
long easy expository	.19	41	.15	.91	41	.23
short standard expository	.19	41	.15	.91	41	.21
short easy narrative	.12	41	.11	.94	41	.36
long easy narrative	.18	41	.14	.90	41	.14
long standard narrative	.20	41	.13	.91	41	.41
long difficult narrative	.15	41	.13	.91	41	.12
short difficult narrative	.27	41	.18	.78	41	.43
short standard narrative	.20	41	.13	.85	41	.25



Next, repeated measures ANOVA was implemented to check whether there are significant differences in vocabulary retention of the students based on the type, difficulty, and length of the twelve texts. Graphical representations of the mean of the texts are presented in Figure1.

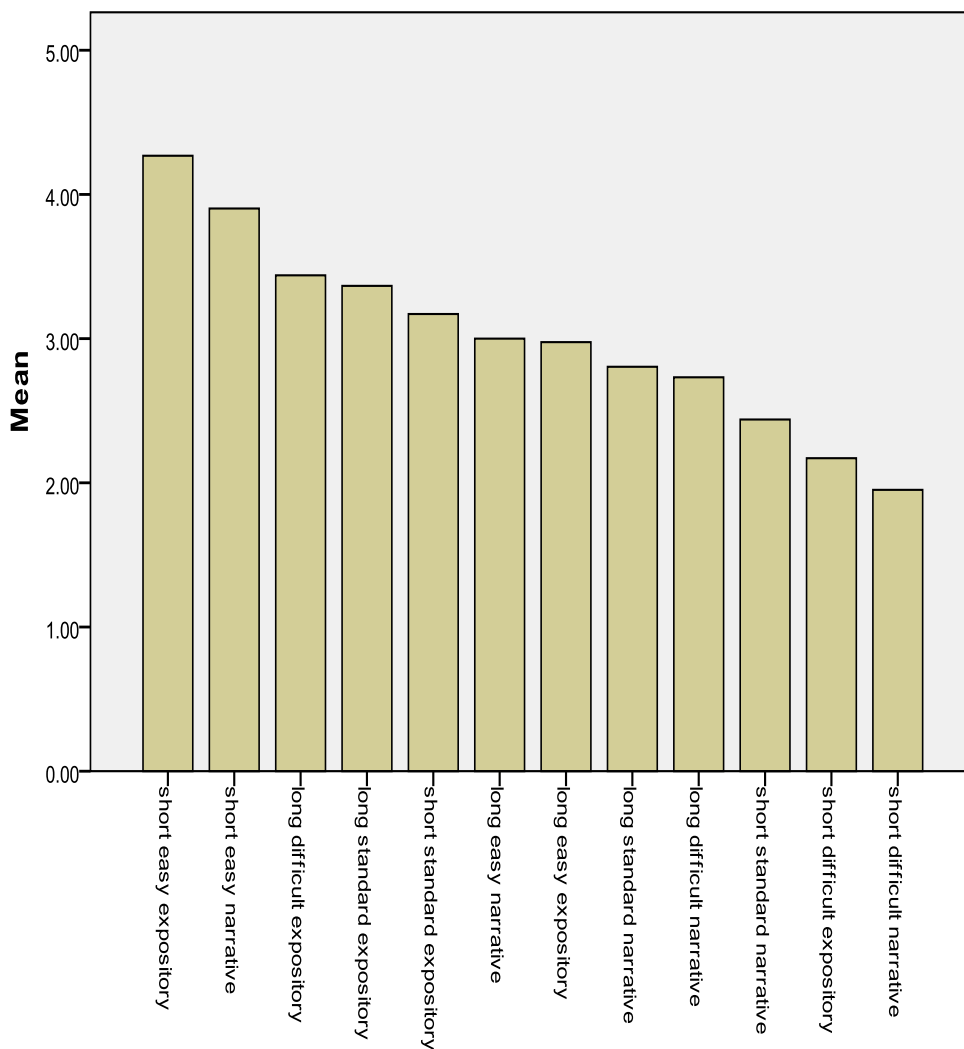


Figure 1.  
Graphical representations of the mean of the texts.

Repeated measures ANOVA, has some assumptions. First, the data should bear a normal distribution. This assumption was met in Tables 4 and 5. The other important assumption is the test for sphericity. Sphericity means that the repeated measures indicate homogeneity of variance (each group should show similar variance). If the test is significant, then a correction must be made before the significance of the ANOVA can be interpreted.

As Table 6 indicates, the test is significant. Therefore, correction must be considered. Since all the corrected tests show p-values <.05 (Table 7), we can say that there are significant differences in the vocabulary retention across the texts ( $F= 7.72, p<. 05$ )

Table 6  
Mauchly's Test of Sphericity

Within Subjects Effect		Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>a</sup> Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Dimension1	text	.081	91.02	65	.020	.67	.84	.091

Table 7  
Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Text	Sphericity Assumed	204.49	11	18.59	7.72	.00	.16
	Greenhouse-Geisser	204.49	7.46	27.39	7.72	.00	.16
	Huynh-Feldt	204.49	9.344	21.88	7.72	.00	.16
	Lower-bound	204.49	1.000	204.49	7.72	.00	.16
Error(text)	Sphericity Assumed	1059.42	440	2.40			
	Greenhouse-Geisser	1059.42	298.55	3.54			
	Huynh-Feldt	1059.42	373.76	2.83			
	Lower-bound	1059.42	40.00	26.48			

To determine the precise place of difference, contrasts between each two text was analyzed. For this, purpose post-hoc analysis Tukey test was run. The outcomes can be observed in Table 8. The first three texts with the highest mean and the last three with the lowest mean scores were examined. Table 8 implies that texts which were short with regard to the length, easy with regard to the difficulty, and expository with regard to the type helped students retain the vocabulary items better than other texts. The finding also implied that those texts which were short with regard to the length, difficult with regard to the difficulty, and narrative with regard to the type did not help students retain the words. A discrepancy could be observed regarding the effect of length, in one case, short texts could help students retain the words and in the other it could not. This implied that to decide whether to utilize glossing in reading texts or not, length by itself cannot be used as a determining factor.

Table 8

*Multiple Comparisons of Tukey post hoc test*

		Mean	SE	Sig.	95% Con. Interval	
		Differences				
Short easy expository	Short easy narrative	.36	.23	.45	-.90	.41
	Long difficult expository	.82	.23	.04	-1.02	.25
	Long standard expository	.90	.22	.02	-1.07	.18
	Short standard expository	1.09	.22	.03	-1.09	-.41
	Long easy narrative	1.26	.42	.03	-1.86	.75
	Long easy expository	1.29	.75	.02	-1.92	.28
	Long standard narrative	1.46	.23	.02	-2.05	.85
	Long difficult narrative	1.53	.85	.01	-2.12	1.52
	Short standard narrative	1.82	.42	.00	-2.45	.59
	Short difficult expository	2.09	.84	.00	-2.78	.18
Short difficult narrative	2.31	.41	.00	-2.16	.49	
Short easy narrative	Long difficult expository	.46	.23	.23	-.41	-.45
	Long standard expository	.53	.11	.16	-.45	-.50
	Short standard expository	.73	.10	.04	-.50	-.51
	Long easy narrative	.90	.10	.03	-.51	.07
	Long easy expository	.92	.12	.03	.75	.43
	Long standard narrative	1.09	.78	.02	.28	.46
	Long difficult narrative	1.17	.42	.01	.32	.63
	Short standard narrative	1.46	.15	.00	.48	.80
	Short difficult expository	1.73	.48	.00	.14	.63
	Short difficult narrative	1.95	.42	.00	-.19	.96
Long difficult expository	Long standard expository	.07	.23	.81	-.25	1.02
	Short standard expository	.26	.10	.20	-.18	.45
	Long easy narrative	.43	.32	.09	.75	.45
	Long easy expository	.46	.21	.08	.28	1.78
	Long standard narrative	.63	.39	.02	.32	.45
	Long difficult narrative	.70	.18	.01	.48	.89
	Short standard narrative	1.00	.45	.00	.75	1.75
	Short difficult expository	1.26	.219	.00	.89	1.53
	Short difficult narrative	1.48	.089	.00	.79	.89
	Short difficult narrative	Short easy expository	-2.31	.22	.00	-.18
Long standard expository		-1.95	.10	.00	-.10	.50
Long difficult expository		-1.48	.09	.00	-.19	.32
Long standard expository		-1.41	.081	.00	-.24	.20
Short standard expository		1.21	.125	.00	.75	.12
Long easy narrative		1.04	.785	.00	.28	.78
Long easy expository		1.02	.841	.00	.32	.84
Long standard narrative		.85	.751	.00	.48	.49
Long difficult narrative		.78	.961	.02	.78	.73
Short standard narrative		.48	.452	.58	.49	.44
Short difficult expository	.21	.816	.78	-.38	.29	
Short difficult expository	Short easy expository	-2.09	.228	.00	-.16	1.09
	Short easy narrative	-1.73	.107	.00	-.07	.51
	Long difficult expository	-1.26	.089	.00	-.16	.33
	Long standard expository	-1.19	.081	.00	-.20	.24
	Short standard expository	1.00	.325	.00	-.18	.78
	Long easy narrative	.82	.214	.00	.75	.42
	Long easy expository	.80	.398	.00	.28	.15
	Long standard narrative	.63	.189	.02	.32	.48
	Long difficult narrative	.56	.569	.12	.98	.19
	Short standard narrative	.26	.893	.18	.49	.49
Short standard narrative	Short easy expository	1.82	.259	.00	.75	-.18
	Short easy narrative	1.46	.451	.00	.28	.49
	Long difficult expository	1.00	.719	.00	.59	.75
	Long standard expository	.92	.439	.00	.19	.48
	Short standard expository	.73	.716	.01	.32	.28
	Long easy narrative	.56	.156	.02	.48	.32
	Long easy expository	.53	.749	.02	.49	.48
	Long standard narrative	.36	.234	.03	.78	.75
Long difficult narrative	.29	.492	.04	.49	.89	

Table 9 summarizes the mean of the first three and last three texts. High1, 2, and 3 stand for the highest ranked mean texts from the highest to the lowest respectively; and low 3, 2, and 1 stand for the lowest ranked mean texts from the highest to the lowest respectively.

Table 9  
Summary of the Results

	Length	Type	Difficulty
High1	Short	Expository	Easy
High 2	Short	Narrative	Easy
High 3	Long	Expository	Difficult
Low3	Short	Narrative	Standard
Low 2	Short	Expository	Difficult
Low 1	Short	Narrative	Difficult

## 7. Discussion

Based on our three variables there were three research questions and each will be discussed in light of the results.

### 7.1. The Effect of Text Type on Vocabulary Retention

Research question one attempts to show which type of text respond better to glossing. There are twelve different texts and each has a mean score in the table 4. As only texts with higher and lower means are important for interpreting the results, the first and the last three texts with the highest and lowest means are examined in this part.

As the results indicate (table 4) the effects of text type on vocabulary retention through glossing was statistically significant and expository texts received better rank than the narrative texts. This means that when we gloss the expository texts there is more probability for students to retain the glossed words. However, for easy narrative texts the difference is not significant.

### 7.2. The Effect of Text Length on Vocabulary Retention

The second research question addresses text length. As the results show (table 4) short texts received higher mean scores than long texts. By considering the first three high mean scores in table 4 it can be understood that short texts can help students retain the vocabulary items better than other texts when length is the criterion. By looking at the last three lowest mean scores, it can be noted that they are short texts. This finding implies that those texts which are short with regard to the length do not help students retain the vocabulary items. So a discrepancy can be observed in high and low mean scores regarding text length. This implies that to decide whether to utilize glossing in reading texts or not, length cannot be used as a determining factor.

### 7.3. The Effect of Text Difficulty on Vocabulary Retention

The results of the third research question about the effect of text difficulty on vocabulary retention were in line with the researcher's expectation. As it could be predicted easy texts got higher mean scores than the difficult texts. Again, it should be mentioned that due to the nature of the study, it is difficult to interpret the results without considering the variables altogether, but as table 4 displays easy texts were more useful for glossing than its counterpart. Regarding text difficulty as table 4 indicated the first two

highest scores were received by easy texts and the last two lowest scores were received by difficult texts. This scores confirmed that when easy texts were glossed and were exposed to students for subsequent vocabulary retention the students had a better performance, but when they were exposed to glossed vocabulary items from difficult texts they could not perform as well as what they did in easy texts.

In summary Table 4 indicates that those texts that are expository with regard to type and easy with regard to difficulty were the best group for vocabulary retention if glossing is used, but when length is the criterion there is a discrepancy in the data. To get of this dilemma, it can be stated that because the variables were measured along with each other, the other variables should help the readers to find the effect of length on vocabulary retention. Regarding this point it is obvious from table 4 that when short texts were difficult, glossing cannot have a facilitating effect on vocabulary retention and when it was used with easy texts its facilitating role improved. Another important point was that the effect of text type in this part was not significant and text type did not influence this relationship.

Table 4 presents some interesting findings. In this table the third and the fourth highest mean scores were gotten by long, difficult expository and long standard expository respectively. These mean scores seemed unpredictable at the outset. Despite the fact that these texts were long and not easy they were considered useful kind of texts to be glossed if one wanted to use them for vocabulary learning and vocabulary retention.

## **8. Conclusion**

The aim of this research was to examine the effects of text type, text length and text difficulty in vocabulary retention. The findings indicated that the effect of text type on vocabulary retention was statistically significant and expository texts received better rank than the narrative texts.

The results also indicated that length by itself cannot be regarded as a single major factor and the other two variables (type and difficulty) should be taken into account. This conclusion is based on the fact that in one case short texts could enhance vocabulary retention and in one case they could not.

Another conclusion which is in line with the researcher's expectation was that easy texts got higher mean scores than the difficult texts. As table 4 shows the first two highest scores were received by easy texts and the last two lowest scores were received by difficult texts.

## **9. Pedagogical Implications**

The results of this study provide teachers with useful information about the use of glossing. It helps them to use glossing in texts that have proven to respond positively to glossing. The results indicated that expository texts were better for glossing when the purpose was vocabulary retention so, material developers can use this finding to their advantage and provide glossed textbooks that are mainly informative (such fields as chemistry, medicine, geography, etc.), but glossing the narrative texts are not as useful as glossing the expository texts.

The findings help learners build up their interpretation and vocabulary retention skills by telling them how they can retain more vocabulary if they utilize the types of texts that the participants in this study performed better on them. The results can help them to be more selective in their use of the materials to read. If they see a glossed narrative text and a glossed expository text the results of this research help them to choose the expository one because the data showed this.

## **10. Limitations of the Study**

There are some limitations that if taken into account a more useful and robust research will appear. The first limitation concerns the participants. The participants of the current research were female students. The replication with both male and female students may lead to different results. As mentioned before, combine short paragraphs. The second limitation is that of the existing text types the researcher selected two of the most available ones, but there are more text types than what was examined in this paper that can be taken into consideration in future studies. The third limitation is that, in the current study there was one score for a combination of variables, but it seemed possible to have a study in which for all of the variables considered in this study, including expository, narrative, short, long, easy, standard and difficult, there is a separate score, then it would be easier to compare them and to specifically understand the effects of each variable on the vocabulary retention. Finally, it is also possible to have a delayed post-test for determining the long term effects of glossing that has remained unknown up to now and requires a thorough study to be conducted in this area.

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