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**THE EFFECT OF DIFFERENT TYPES OF GLOSSES ON  
INCIDENTAL VOCABULARY LEARNING AND  
READING COMPREHENSION ACROSS TEXT TYPES**

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR MASTER DEGREES IN TEACHING ENGLISH AS A  
FOREIGN LANGUAGE (TEFL)

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## **STATEMENT OF AUTHENTICATION**

I hereby declare that the work presented in the thesis is to the best of my knowledge and belief, original, except as acknowledged in the text, and that material has not been submitted either in a whole or in part for a degree at this or any other university.

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June, 2009

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## **ABSRTACT**

# **The Effect of Different Types of Glosses on Incidental Vocabulary Learning and Reading Comprehension across Text Types**

**By**

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Studies conducted in the field of second language (L2) learning have revealed that the effects of gloss types on incidental vocabulary learning and reading comprehension is an issue of debate. The purpose of this study was to investigate this issue across text types among Iranian university EFL students. The gloss types applied in this study included single gloss in students' first language (SL1G), single gloss in students' second language (SL2G), and multiple choice gloss (MCG) in students' second language. Participants were one hundred eight undergraduate students (fifty-two freshmen and fifty-six sophomores) majoring in English Literature and Translation at the University of Kashan. They read two texts, one narrative and one expository, under one of the following conditions: (a) SL1G, (b) SL2G (c) MCG. Afterwards, participants answered a multiple choice (MC) comprehension test. Moreover, participants answered two vocabulary tests, one administered immediately after the reading test and another two weeks later. To control participants' reading proficiency, two MC cloze tests were given to them. One-way repeated measures ANOVA and follow-up post hoc Tukey's HSD tests ( $p < .05$ ) showed that MCG and SL1G were more effective in enhancing participants' vocabulary learning while reading the narrative text than SL2G. Moreover, MCG facilitated participants' vocabulary learning while reading the expository text more than SL2G. MCG group also outperformed SL1G group in the delayed posttest. The results of one-way ANOVA and follow-up post hoc Tukey's HSD tests ( $p < .05$ ) revealed that SL1G was the most effective gloss type in facilitating participants' reading comprehension of the narrative text, and SL2G in facilitating participants' reading comprehension of the expository text. The results of the responses to the questionnaire showed that most participants preferred margin-inserted glosses in English. The findings can be inspiring for language teachers and material developers.

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## **ACRONYMS AND ABBREVIATIONS**

ACT: American College Test

ANOVA: Analysis of Variance

ESPE: Examination for the Certificate of Proficiency in English

HSD: Honestly Significant Difference

IELTS: International English Language Testing System

MC: Multiple Choice

MCG: Multiple Choice Gloss

MD: Mean Difference

SG: Single Gloss

SL1G: Single L1 Gloss

SL2G: Single L2 Gloss

SPSS: Sciences Statistical Package for the Social Sciences

# CHAPTER ONE

## INTRODUCTION

### 1.1 Overview

Many researchers believe that vocabulary learning is the most important facet of second-language (L2) learning (Knight, 1994) and “an essential part of mastering a second language” (Schmitt, 2008, p.329). Vocabulary knowledge is indispensable for reading comprehension as well. Research has shown that reading comprehension is closely connected to vocabulary knowledge. As Stahl (1983) proposes, the relationship between reading comprehension and vocabulary knowledge is “one of the best documented relationships in reading research” (p.33). One cannot understand text without knowing what most words mean (Nagy, 1988). This interconnectedness between students’ vocabulary and students’ reading comprehension led many researchers to believe that “a reader’s general vocabulary knowledge is the best predictor of how well that reader can understand text” (Anderson & Freebody, 1981, p. 3). Stahl (2003), who described the relationship between reading and vocabulary “robust,” argues that vocabulary knowledge has consistently been the “foremost predictor of a text’s difficulty” (p.241).

One way of vocabulary teaching through context is suggested by Krashen (1989), who supports vocabulary acquisition through reading. This view is based on the assumption that words can be naturally acquired when learners aim to comprehend the text. Lexical growth from extensive reading is based on the theory of input-oriented language acquisition (Nation, 1990; Krashen, 1993; Brown, 1994). The theory states that readers’ purpose of text comprehension precipitates the processing of unfamiliar lexical items. Furthermore, it claims that the exposure to meaningful and contextual input may lead to further processing and integration of new words into the mental lexicon (Krashen, 1989).

In light of L2 vocabulary learning, Laufer (1997) calls L2 readers' struggle with vocabulary while reading the L2 as "the lexical plight." It is no surprise that a great number of students are studying a foreign language and their teachers denote vocabulary as their foremost priority (Knight, 1994). This high amount of required vocabulary is hard to teach in class because it would take away the time needed for students to learn other skills such as listening, speaking, reading, and writing (Groot, 2000). Therefore, foreign-language learners need to develop strategies for coping with unfamiliar words (Harley, 1986).

Vocabulary learning is divided into two major categories, incidental and intentional vocabulary learning. However, researchers have made a distinction between incidental and intentional vocabulary learning. Laufer (2003) defined incidental vocabulary as the "learning of vocabulary as the by-product of any activity not explicitly geared to vocabulary learning" (p. 2). Intentional vocabulary learning, on the other hand, is defined as "any activity geared at committing lexical information to memory" (Hulstijn, 2001, p. 271).

The fact that incidental vocabulary acquisition occurs in L2 learning is generally accepted among researchers. Most researchers agree that except for the first few thousand most common words, L2 vocabulary is largely acquired incidentally (Huckin & Coady 1999). Gass (1999) proposes that incidental vocabulary learning does not mean that the learner does not pay attention to the word in question; only that his or her attention is focused on comprehending the reading passage as a whole, and memory of the new word comes as a natural result of this process. Huckin & Coady (1999), in a review article on incidental vocabulary learning, claim that "much second vocabulary learning occurs incidentally while the learner is engaged in extensive reading" (p.181). Huckin & Coady (1999) further emphasized that incidental vocabulary learning has a vital role in learning vocabulary and is preferred to intentional learning because of several reasons. First, it is individualized. Second, it occurs in a contextualized form giving learners a sense of the use of the words in real situations. Third, it is more permanent. Finally, it enables vocabulary acquisition and reading to occur simultaneously. These advantages lead researchers to investigate the efficiency

and the results of providing language learners with additional semantic input for L2 vocabulary while engaged in a reading activity.

According to the literature, there are some strategies which can promote incidental vocabulary learning such as using dictionary (Knight, 1994) and the provision of glosses (Davies, 1989; Hulstijn, 1992; Jacobs et al., 1994; Watanabe, 1997). Using dictionaries can make reading a text in a second language “three to four-hour ordeal” (Crow 1986, p. 242). Moreover, to be able to use the dictionary efficiently, students need special training, because the use of several meanings of a single word can be difficult (Nation, 2001).

Researchers have studied glosses as one of the useful devices in enhancing incidental vocabulary learning and reading comprehension. As Nation (2001) puts it, gloss is “a brief definition or synonym, either in L1 or L2, which is provided with the text” (p. 174). Generally, there are some advantages for applying glosses. First, glosses can help readers understand new words more precisely through preventing incorrect guessing. Deriving meaning from context can be difficult and risky because of readers’ lack of language or reading strategies (e.g., Hulstijn, 1992; Nation, 2001). Second, glosses can help readers build a bridge between previous knowledge and new information in the text. Third, glossing can reduce interruption while reading is in process. As glossing provides definitions for low frequency words, L2 readers do not have to continually look them up (Nation, 1990; Nation, 2001). Fourth, glosses allow learners to gain greater autonomy, and to be less dependent on their teachers since they can look up just the words they do not know (Jacobs, 1994; Nation, 1990).

Although the provision of glosses reduces the difficulties from insufficient context and reduces possible incorrect inference, it has limited effect on long-term vocabulary retention (Holly & King, 1971; Jacobs et al., 1994; Watanabe, 1997). To tackle this problem, Hulstijn (1992) proposes the use of multiple choice gloss (MCG) as a compromise between inferencing and vocabulary gloss. In MCG, there are multiple options of meanings given under a word item. In addition, Hulstijn (1992; 2001) claims that the provision of glosses may reduce learners’ mental processing of inferring word meaning from contextual clues, which works against retention in long-term memory. Hence, Hulstijn (2001) proposes mental

effort hypothesis which states that inferring requires mental effort. Mental effort enhances learners' recall and retention of acquired information (Hulstijn, 1992, 2001) as well. However, the results of previous studies show that single gloss (SG) and MCG are beneficial to incidental vocabulary learning (Jacobs et al., 1994; Hulstijn et al., 1996; Watanabe, 1997; Rott et al., 2002; Yoshii, 2006).

## **1.2 Statement of the Problem**

The effectiveness of L1 gloss and L2 gloss on incidental vocabulary learning and reading comprehension has been a controversial issue. Some research revealed no significant difference between gloss types (e.g. Jacobs et al., 1994) and others indicated the superiority of one gloss type over another type (Hulstijn, 1996; Miyasako, 2002; Ko, 2005). Findings of previous research examining the effects of SG and MCG, however, are inconsistent (Hulstijn, 1992; Watanabe, 1997; Nagata, 1999). There have been some studies done on the effect of glossing in facilitating second language reading comprehension. Holley and King (1971), Johnson (1982), Jacobs et al. (1994), and Bell and LeBlanc (2000) showed no significant effect for glossing on L2 reading comprehension, whereas Davis (1989), Jacobs (1994), and Ko (2005) showed that glosses can facilitate it. Taking into account the positive findings of the effectiveness of gloss, researchers have shifted their focus from gloss effects to gloss types (Watanabe, 1997; Nagata, 1999). In other words, there has been an attempt to ascertain what types of glosses generate more positive effects on students' vocabulary learning and reading comprehension.

As Joyce (1997) puts it, "text type must also be considered when performing research on reading comprehension" (p.63). Joyce also refers to an empirical study conducted by Luo (1993). Luo found that marginal glosses in the participants' L1 facilitated comprehension of literary texts. Also, Joyce (1997) proposes that, "future research might compare the effects of glossing for several different text types" (p.63). Present findings based on one text type restrict the extent to which research results can be generalized to other reading environments. Surprisingly, most studies involving only one reading passage fail to cite the need for additional research that investigates the effects of their treatments across other text varieties. Since there is a gap in the literature related to the effect of gloss

types across text types, the present study aims to investigate the effect of gloss types on incidental vocabulary learning and reading comprehension across text types.

Furthermore, few studies (e.g. Jacobs et al., 1994; Bell & LeBlanc, 2000; Ko, 2005) have taken participants' attitude toward glossing into account. Jacobs et al. (1994) and Ko (2000) stated that their participants favored L2 glosses, whereas Bell and LeBlanc (2000) pointed out that their participants preferred L1 glosses. Regarding the aforementioned studies, more studies on readers' attitude toward glossing are required.

### **1.3 Objectives of the Study**

This study aims to show whether single gloss in students' first language (SL1G), single gloss in students' second language (SL2G), and multiple choice gloss (MCG) in students' second language, differ in facilitating Iranian university EFL students' incidental vocabulary learning. In addition, to further trace students' vocabulary learning during reading, the current study will adopt one delayed posttest after the immediate one to indicate the projection of lexical retention. Furthermore, this study plans to reveal whether different types of glosses (SL1G, SL2G and MCG) differ in facilitating Iranian EFL students' reading comprehension. To fill in the existing gap in the literature, the current study will examine the effects of gloss types on university EFL students' incidental vocabulary learning and reading comprehension across two major text types, i.e. narrative and expository texts. To find the Iranian university EFL students' attitude toward glossing, viz. the frequency of attention to the glosses and preferences for the use, location, and language of glosses, a survey will be conducted.

### **Research Questions**

Within the scope of this study, the following questions were addressed:

- Q1: Is there any difference among SL1G, SL2G, and MCG in facilitating Iranian university EFL students' incidental vocabulary learning in a narrative text?
- Q2: Is there any difference among SL1G, SL2G, and MCG in facilitating Iranian university EFL students' incidental vocabulary learning in an expository text?

Q3: Is there any difference among SL1G, SL2G, and MCG in facilitating Iranian university EFL students' reading comprehension of a narrative text?

Q4: Is there any difference among SL1G, SL2G, and MCG in facilitating Iranian university EFL students' reading comprehension of an expository text?

Q5: What is the Iranian university EFL students' attitude toward glossing?

### **Research Hypotheses**

For purposes of research, it was hypothesized that in this sample:

H1: There is no difference among SL1G, SL2G, and MCG gloss in facilitating Iranian university EFL students' incidental vocabulary learning in a narrative text.

H2: There is no difference among SL1G, SL2G, and MCG gloss in facilitating Iranian university EFL students' incidental vocabulary learning in an expository text.

H3: There is no difference among SL1G, SL2G, and MCG gloss in facilitating Iranian university EFL students' reading comprehension of a narrative text.

H4: There is no difference among SL1G, SL2G, and MCG gloss in facilitating Iranian university EFL students' reading comprehension of an expository text.

### **1.4 Significance of the Study**

The investigation of the effect of SL1G, SL2G, and MCG on vocabulary learning and reading comprehension could confirm the previous findings and provide pedagogical implications for Iranian EFL teachers and learners. First, the findings presented in this study may clarify the superiority of one gloss type over another in facilitating vocabulary learning and reading comprehension. Second, the mental effort hypothesis could be further substantiated based on the observation of lexical retention. Finally, the results may verify the efficacy of gloss types across narrative and expository texts.

Furthermore, as there is a gap in investigating the effect of textual glosses on vocabulary learning and reading comprehension across text types, this study is the first to examine this issue in Iran. It is expected that the findings of the study can shed light on vocabulary pedagogy and reading comprehension in Iran. Moreover, the results could be useful for those teachers who deal with vocabulary pedagogy



and seek ways to improve their students' lexical knowledge. Material developers can also benefit from the findings in that they can enhance the quality of vocabulary and reading comprehension text-books through utilizing glosses in different types and various locations.

### **1.5 Definition of Key Terms**

The following terms are used throughout the present study:

**Expository text:** A text whose main goal is to inform.

**Gloss:** "A brief definition or synonym, either in L1 or L2, which is provided with the text" (Nation, 2001, p.174).

**Glossing:** Glossing means providing students with a short definition or translation while they are reading for meaning (Nation, 1990).

**Incidental vocabulary learning:** "Learning of vocabulary as the by-product of any activity not explicitly geared to vocabulary learning" (Laufer, 2003, p.2).

**Multiple choice gloss (MCG):** A type of gloss which multiple options of meanings given under a word item. Hulstijn (1992) argued that by providing one or more alternatives serving as distracters plus one correct meaning in MCGs the search and evaluation of the best choice that fits into the context augments the amount of processing.

**Narrative text:** A text "whose main purpose is to entertain" (Weaver and Kintsch, 1991, p. 230).

**Retention:** Ability to provide a meaning of a word after a given period of time is called retention.

**Target words:** Those words subject to a gloss during an investigation are called target words. Target words are usually tested at the end of the experiment to assess lexical knowledge gained (Yoshii, 2006).

## **CHAPTER TWO**

### **REVIEW OF LITERATURE**

#### **2.1 Introduction**

This chapter is dedicated to the summation of studies associated with past research relevant to this study. The first section refers to the relationship between vocabulary and comprehension. The second section discusses incidental and intentional vocabulary learning. The third section touches upon the definition and importance of glossing in the L2 learners' vocabulary learning and reading comprehension. In the third section, different types of glosses are also briefly discussed according to the Roby's taxonomy (1999). The fourth section explains some studies in the literature pertinent to the effect of glosses on incidental vocabulary learning. The fifth section discusses the research on MCGs. The sixth section refers to those studies dealing with the effect of glosses on reading comprehension. The seventh section looks at a number of studies which investigated the participants' attitude toward glossing. The last section tries to explicate narrative and expository texts as two major text types.

#### **2.2 Vocabulary and Comprehension**

The degree of attention to unfamiliar words in reading still remains in debate in the field of vocabulary learning. The Input hypothesis proposed by Krashen (1989) claimed that most words are acquired incidentally from extensive reading. In Krashen's view, vocabulary learning is usually supposed as the accidental learning in which students do not attend to the particular information. Therefore, incidental learning is often regarded as a by-product of intentional learning. As stated by Krashen (1989), readers' attention should be drawn to the meaning conveyed in the text rather than on unknown words.

Stahl (1983) stated that the connection between vocabulary knowledge and reading comprehension is "one of the best documented relationships in reading

research” (p. 33). In effect, research has constantly found a “strong correlation between vocabulary knowledge and reading comprehension” (p. 33). This is because “vocabulary knowledge is fundamental to reading comprehension; one cannot understand text without knowing what most of the words mean” (Nagy, 1988, p. 1). Daneman (1988) proposed that since words are the building blocks of connected text, the success of searching for individual word meanings is key to constructing text meaning. Similarly, Davis (1968) found that the most correlated factor with comprehension is knowledge of word meaning. Also, Stahl (2003) argued that the more students are exposed to words and their meanings, the easier it will be for them to comprehend text. As Stahl and Nagy (2006) claimed, “having a big vocabulary makes you a better reader” (p. 9). Several empirical studies were conducted to examine the importance of vocabulary in reading comprehension, and the findings showed high correlations between students’ vocabulary knowledge and their general reading skills. In a study conducted by Anderson and Freebody (1981) involving 8th grade students, a high correlation between tests of vocabulary and comprehension was found. The researchers argued that “a reader’s general vocabulary knowledge is the single best predictor of how well that reader can understand text” (p. 3). In another empirical study, Qian (1999) investigated the relationships between depth (learner’s level of knowledge of various aspects of a given word) and breadth (vocabulary size) of vocabulary knowledge and reading comprehension among ESL learners in two universities in Ontario. The results showed that, for ESL learners with a minimum vocabulary size of 3,000 word families, “scores on vocabulary size, depth of vocabulary knowledge, and reading comprehension are highly, and positively correlated; and scores on depth of vocabulary knowledge can make a unique contribution to the prediction of reading comprehension levels” (p. 280).

The idea that vocabulary can be predictive of reading comprehension was supported by Stahl (2003), who called the relationship between vocabulary and reading comprehension a “robust” one and said vocabulary knowledge has consistently been the “foremost predictor of a text’s difficulty” (p. 241). In his study of 28 average 5th grade readers, Stahl (1983) found that students who had vocabulary instruction achieved significantly higher scores on comprehension and

vocabulary learning. Moreover, Laufer (1997) argued that the threshold for reading comprehension is, to a large extent, lexical. It seems that readers will be able to transfer their L1 reading strategies to L2 contexts only when they have at least 4,800 L2 items in their lexicon (Laufer, 1992), and lack of L2 linguistic competence cannot be compensated for by good reading abilities in L1.

### **2.3 Vocabulary Learning: Incidental versus Intentional**

Researchers make a distinction between incidental and intentional vocabulary learning. Hulstijn et al. (1996) defined incidental learning as the “accidental learning of information without the intention of remembering that information” (p. 327). Laufer (2003) defined incidental vocabulary as the “learning of vocabulary as the by-product of any activity not explicitly geared to vocabulary learning” (p. 2). On the other hand, as Hulstijn (2001) put it, intentional vocabulary learning is defined as “any activity geared at committing lexical information to memory” (p. 271). Some researchers have proposed that the main difference between incidental and intentional vocabulary learning is the learners’ kind of attention while involved in a given task. According to Ellis (1994), “whereas intentional learning requires focal attention to be placed on linguistic form, incidental learning requires focal attention to be placed on meaning (i.e. message content), but allows peripheral attention to be directed at form” (p. 2).

Researchers have conducted many studies to investigate the efficiency of incidental and intentional learning of vocabulary. Krashen (1989), in his review article, concluded that incidental vocabulary learning yields better results than intentional vocabulary learning because “words in natural texts are encountered in a variety of contexts, which helps readers acquire their full semantic and syntactic properties” (p. 450). As Nagy and Herman (1987) put it, “explicit vocabulary instruction, even at its best, cannot produce substantial gains in overall vocabulary size or in reading. Major progress toward these goals can be attained only by increasing incidental vocabulary learning” (p.19). It is widely believed among scholars that a major part of the vocabulary of L2 learners is acquired incidentally. In addition, most of the studies that investigated the effectiveness of glosses have explored the effect on incidental vocabulary learning (Gass, 1999). The following