

Effects of pictorial instruction vs textual glossing of phrasal verbs in Iranian EAP reading classes

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Abstract

This study was an attempt to explore the effects of pictorial instruction and textual glossing technique for teaching phrasal verbs in Iranian EAP reading context. First, 28 homogeneous students who had the same language proficiency level and were checked for their vocabulary and phrasal verbs knowledge were divided into two experimental groups. One group was assigned as pictorial group who received the picture instruction of phrasal verbs within EAP reading text, while the other group was the textual glossing group and the participants received the phrasal verbs within EAP reading texts by glossing technique. The results indicated that the pictorial group showed improvement in their knowledge of phrasal verbs while there was not such a change in the glossing group. Furthermore, the comparison of these two groups showed that there was a significant difference between them and the pictorial group outperformed glossing group. The findings of the present study can help EFL language teachers and materials developers in teaching phrasal verbs.

Keywords: vocabulary; EAP Reading; phrasal verbs; pictorial instruction; textual glossing technique

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1. Introduction

Long-term retention of vocabulary is a crucial and fundamental issue in teaching and learning a foreign language. Incidental exposure to vocabulary through reading does not appear to be sufficient for long-term acquisition (Peters, Hulstijn, Sercu, & Lutjeharms, 2009). Students need to understand that lexical knowledge includes not simply understanding a word's meaning, but also includes the actual use of vocabulary with correct spelling, pronunciation, grammatical form and collocation. Phrasal verbs (PVs) are common in English, especially in spoken discourse. PVs are frequent in everyday language and they are important parts of English vocabulary, thus it is important to learn them. A challenging part of learning English vocabulary is proficiency of PVs (Laufer & Eliasson, 1993; Siyanova & Schmitt, 2007). Using PVs is crucial to fluent English and to be native-like. Because PVs are commonly used in spoken informal discourse, ignoring to apply them in these contexts make language unnatural. PVs are on the one hand important and on the other hand difficult to learn. PVs which are important part of English are a challenging area for learners, but trying to find some techniques may facilitate teaching and learning them specially in English for Academic Purposes (EAP) context which can help students of each major to dominate over their texts.

2. Review of Literature

2.1 Importance of Vocabulary

Beside the importance of vocabulary knowledge for oral comprehension, reading comprehension also needs this knowledge. Vocabulary knowledge is important for comprehension and comprehension is essential for SLA. Vocabulary is not a developmental skill or one that can be seen as fully mastered. Based on what Huffman (2010) claims according to the perspective common amongst linguists, vocabulary acquisition happens along a continuum of development, in which a learner progresses from less knowledge to more knowledge of a word. Word knowledge consists of knowing the meaning of a word and how it works (Kucan, 2012). Thus, deep word knowledge is understanding the text which contains the word and using the target word in speech and text (McKeown, Crosson, Artz, Sandora, & Beck, 2013). Learning vocabulary is a process which is not limited to the classroom and it is a lifelong activity (Nazir, 2017). Graves (2016) defined word consciousness as profound awareness of words and interest in them. Awareness of words means understanding of why to use some special words instead of others. Graves (2016, p. 2) asserts that "vocabulary knowledge is an important element in learning to read, academic success and achievement in life beyond school".

Many studies (Cain & Oakhill, 2011; Hall, Greenberg, Laures-Gore, & Pae, 2014; Quinn, Wagner, Petscher, & Lopez, 2015; Verhoeven, Leeuwe & Vermeer, 2011; Yildirim, Yildiz, & Ates, 2011) have investigated the effects of vocabulary knowledge on reading comprehension and literacy development and they indicated that vocabulary knowledge is really important for effective reading comprehension. As Fisher and Frey (2014) vocabulary knowledge is important in content area text and is crucial for understanding the content. They considered vocabulary as the key element for understanding the content.

2.2 English for Academic Purposes (EAP)

English for academic purposes (EAP) is taken from the broader field of English for specific purposes (ESP) and it focuses on teaching English to facilitate learners' study through the medium of English (Flowerdew & Peacock, 2001; Hyland & Hamp-Lyons, 2002). The notion of academic literacy which is a field of study is

related to EAP in different ways that reading is one of these phenomena. This concept is important in the production or interpretation of texts with academic purpose. EAP can be defined as "the teaching of English with the specific aim of helping learners to study, conduct research or teach in that language" (Flowerdew & Peacock, 2001, p. 8).

EAP is designed to help learners in their studies. EAP can be sub-divided into EAP designed to help students with regard to their studies and EAP directed towards professional preparation. Both of them are placed in the academy but they have different goals. Learning vocabulary is an essential concern in reading and also for EAP learners. The reading text is a source for vocabulary acquisition in the classroom. An important issue in reading is learners' fluency, since they should deal with extended reading related to their academic disciplines and also they have to be motivated for reading and learning beyond the classroom (Grabe & Stoller, 2011), and to reach reading fluency, learners require 95% knowledge of the words in the text (Grabe & Stoller, 2002; Alexander, Argent, & Spencer, 2008). Grabe and Stoller (2011) also assert that "without word-reading accuracy, comprehension would quickly become degraded" (p. 291).

2.3 Phrasal Verbs (PVs)

Phrasal verb (PV) is made up of a verb with a particle. In each PV, the verb is the first constituent. Lots of verbs in English are phrasal verbs. A PV is made up of two or three constituents: a verb and an adverb or preposition. Liao and Fukuya (2004) defined PV as a structure which is consisted of a verb and a particle that is morphologically invariable and lexically and syntactically it is a single unit. PVs form an essential aspect of language learning both in spoken and informal and also written and formal English. The meaning of PVs cannot usually be predicted from the combination of the verb and the particle, because PV is a whole unit with an unpredictable meaning. Learning PVs is a challenge for EFL (English as foreign language)/ESL (English as second language) learners because they have idiosyncratic meanings. Another problem is related to their nature, because some of them are separable and some others are not.

PVs have some characteristics: 1) some of them are polysemous, e.g. make up which has eight senses (Villavicencio, 2003). 2) Their syntactic patterns can be flexible or fixed, intransitive or intransitive, or di-transitive. 3) Particle can be omissible or obligatory, e.g. wake (up) but get up. 4) Their meaning can be literal to figurative or idiomatic, e.g. stand up can mean 'rise from a sitting/lying position' or 'an idea is proved to be correct'. To facilitate learning this category and to pave the way for EFL/ESL learners to master English PVs, some tasks, including translation, picture-cued tasks, metaphorical conceptualization and sequential contextualization are used (Daghari & Gorjian, 2015).

2.4 Pictorial Instruction

Using pictures is a method that can help instructors to explain the meaning of a new word. This method is used for communicating the meaning of a word. This method can be useful and effective in the way that learners see the meaning by an example. Pictures have facilitative nature on word encoding, word processing and memory. Pictures provide superior sensory information for coding in comparison with words, thus they are easily processed and encoded into memory. Different studies about recall and retention show that by picture stimuli over than word stimuli memory performance increases. If different levels of cognitive system work together, information processing may be more influential. McBride and Doshier (2002) in their study stated that pictures are a source of information that involves deep level of processing.

When pictures are more effective in recall task, this influence is called the picture-superiority effect. Picture superiority effect can be defined as the superior memory of pictorial stimuli over word stimuli. This effect indicates that pictures are encoded effectively than words, therefore they are better remembered. In the study of McBride and Doshier (2002) participants performed memory tasks and picture superiority was tested. The results asserted that pictures had conceptual (conscious) processing advantage over words. In another study done by

Hazamy (2009) effects of pictures and their interference on word memory were investigated. The results showed that semantically related pictures facilitated word recognition memory.

2.5 Glossing

According to Khezrlou, Ellis, and Sadeghi (2017), "a gloss refers to short definitions or translations of unknown words provided in the text to support learners' reading comprehension" (p. 105). Nation (2013) maintains that gloss is a definition or synonym in L1 or L2 which is written in the text and he believes that glosses have facilitative role in vocabulary acquisition and reading comprehension. When learners face unfamiliar words in the text, glosses provided with them help learners to better reading comprehension. Glosses cause learners not to guess incorrectly and they present specific meanings for unknown words related to the context. Glosses usually are written at the margin of the text and they can be textual, visual, both textual and visual or auditory.

An issue with regard to glosses is their effect on comprehension of the text. Glosses work as dictionary. The definition of vocabularies are available, thus they do not interrupt the reading process. According to Bowles (2004) they promote comprehension of the text and incidental vocabulary learning. Glosses help learners in the comprehension of written text. Physical form and location of glosses do not affect reading and vocabulary performance, but what is influential is the type of information, for instance the meaning-given glossing is more effective than the meaning-inferred glossing (Lee, Lee, & Lee, 2015).

2.6 Research Questions

This study seeks to answer the following research questions:

- Does pictorial instruction of phrasal verbs have a significant effect on Iranian EFL learners' learning of phrasal verbs in EAP reading classes?
- Does textual glossing technique have a significant effect on Iranian EFL learners' learning of phrasal verbs in EAP reading classes?
- Is there a significant difference between the effects of pictorial instruction vs. textual glossing technique in teaching phrasal verbs in EAP classes?

3. Method

3.1 Participants

To start the process of this study, 35 students (male and female) of Management from Sobh-E-Sadegh Institute of Higher Education were selected. Then, a Quick Placement Test (QPT), (vocabulary and grammar sections), was run to select 28 homogeneous students based on the normal distribution of the scores using the QPT level chart. They were randomly divided into two equal groups. The participants were from 19 to 30 years old and they did not have the experience of speaking a foreign language. After choosing 28 participants, they were randomly assigned to two experimental groups (14 students in each group). The participants in both groups were at the intermediate level.

3.2 Instruments

In this study, six types of materials were applied to collect the data, namely: A Quick Placement Test, A pre-test, Reading text, Pictorial Instruction, Glossing Technique, and A post-test.

Quick Placement Test (QPT) - A Quick Placement Test (QPT), (grammar and vocabulary sections), was

used. This test had 60 questions related to language use. The aim of using this test was to choose 28 homogeneous students according to the normal distribution of the scores based on the QPT level chart.

Pre-test, Post-test - A researcher made multiple-choice pre-test consisting of 15 questions about PVs was given to the students to assign and measure their knowledge of PVs before starting the treatment. The validity and reliability showed that this test truly measures the learners' knowledge of PVS. Moreover, a researcher made post-test made up of 15 multiple-choice items was run after the treatment. The validity of these two tests was checked by two experts. The reliability of them was calculated by Cronbach's alpha and it showed 0.72 of reliability.

Reading Texts - Three reading texts related to Management were selected. The level of these texts was intermediate according to the level of students. The main content of the reading texts included a good number of PVs.

Pictorial Instruction - For teaching PVs two techniques were selected; pictorial instruction was one of these techniques. The PVs of reading texts were shown to students as a picture by power point projector one by one during reading.

Glossing Technique - Another applied technique in this study was glossing. In each text, the synonym of each PV was written next to it in the parentheses.

3.3 Procedures

This study was conducted in Sobh-E-Sadegh Institute of Higher Education in Esfahan. As was mentioned, the population of the study was 35 students that after conducting a Quick Placement Test (QPT), (vocabulary and grammar sections), 28 homogeneous students based on the normal distribution of the scores using the QPT level chart were chosen. The participants were randomly divided into two experimental groups. Each group consisted of 14 students. They were within the age range of 19 to 30 years and they did not have the experience of a foreign language except English.

After choosing 28 homogeneous participants out of 35, they were assigned to two experimental groups. Each group consisted of 14 participants. One group was named Pictorial Group (PG) and the other one was called Glossing Group (GG).

The pretest with 15 items was administered. Its purpose was to assign the students' knowledge and level of English PVs prior to the treatment. Then, for treatment sessions students in each group received the reading passages. The texts were on the topic of management and showed multiple instances of PVs. In pictorial group (PG) when reading the passage and facing a PV the picture of that verb was shown by projector and the students tried to talk about their ideas with regard to the meaning of each unfamiliar PV.

In glossing group (GG), students had the reading text that was glossed; that is, the meaning and synonym of each PV was written in the parentheses next to it. During reading they shared ideas and talked about meanings of each verb. The treatment and reading sessions lasted three weeks; each week a session which was about 45 minutes involved reading one passage. After the sessions of treatment, a week later the posttest was given to two groups in order to find their gains in learning PVs.

4. Data Analysis

Out of 35 students of Management in Sobh-E-Sadegh Institute of Higher Education, researcher chose 28 of them based on their QPT scores, and they were placed into two groups. One group was pictorial group (PG), and the other one was glossing group (GG). These participants took the pre-test on PVs and then, the treatment was run, that consisted of reading texts and receiving instruction on PVs by two different techniques, namely pictorial instruction by using power point projector for pictorial group (PG) and glossing technique for glossing

group (GG). At the end a post-test, which focused on PVs was given to the learners in both groups. The followings present the results and analyses of the statistical tests employed in the study.

In order to answer the first research question, a paired samples t-test was run.

Table 1

Descriptive Statistics of the Pictorial Instruction Group

	<i>Mean</i>	<i>n</i>	<i>SD</i>	<i>Std. Error Mean</i>
pretest	6.71	14	2.33	.62
posttest	8.50	14	1.02	.27

As it can be seen in Table 1, the difference between the pre-test scores of pictorial group ($M = 6.71$) and the post-test scores of pictorial group ($M = 8.50$) were different. However, a paired-samples t-test was conducted to make sure if there was a significant difference between the pre and posttest mean scores and the following table shows the result.

Table 2

Paired Samples t-test for Pictorial Instruction Group

	<i>Mean</i>	<i>SD</i>	<i>Std. Error Mean</i>	<i>t</i>	<i>df</i>	<i>p</i>
Pretest-posttest	-1.78	2.35	.63	-2.83	13	.014

In Table 2, it can be seen that there was a statistically significant increase in posttest scores ($M = 8.50$, $SD = 1.01$), $t(13) = -2.83$, $p < .05$ (two-tailed) from pretest ($M = 6.71$, $SD = 2.33$). The eta squared statistic (.38) indicated a large effect size. These results indicate that pictorial instruction was useful and effective for this group of learners.

Table 3

Descriptive Statistics of Textual Glossing Technique Group

	<i>Mean</i>	<i>n</i>	<i>SD</i>	<i>Std. Error Mean</i>
pretest	5.64	14	1.73	.46
posttest	6.00	14	1.92	.51

Table 3 illustrates that the difference between the pre-test scores and post-test scores of textual glossing group was not very different when considering the mean of pre-test scores ($M = 5.64$) and the mean of post-test scores ($M = 6$).

Table 4

Paired Samples t-test for Textual Glossing Technique Group

	<i>Mean</i>	<i>SD</i>	<i>Std. Error Mean</i>	<i>t</i>	<i>df</i>	<i>p</i>
Pretest-posttest	-.35	2.92	.78	-.457	13	.655

As in Table 4 is illustrated a paired-samples t-test was conducted to evaluate the impact of textual glossing technique on learning PVs in EAP reading classes. It can be concluded based on the results that there was not any statistically significant increase (Table 4) in posttest scores ($M = 6$, $SD = 1.92$), $t(13) = -.457$, $p < .05$ (two-tailed) from pretest ($M = 5.64$, $SD = 1.73$).

Table 5

Descriptive Statistics of Pictorial Instruction and Textual Glossing Technique Groups

<i>Instruction</i>	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>Std. Error Mean</i>
Pictorial instruction	14	8.50	1.01	.27
Textual glossing technique	14	6.00	1.92	.51

In Table 5 the mean difference for the pictorial group ($M = 8.5$) and textual glossing group ($M = 6$) indicates that the pictorial group outperformed the textual glossing group. However, an independent samples t-test was run to examine if the difference was a significant one or not. Table 6 shows the independent samples t-test results for pictorial instruction and textual glossing technique group.

An independent-samples t-test was conducted to compare pictorial instruction and textual glossing technique in teaching PVs in EAP classes. There was a significant difference in scores for pictorial instruction ($M = 8.5$, $SD = 1.01$) (Table 5) and textual glossing technique ($M = 6$, $SD = 1.92$; $t(26) = 4.30$, $p = .000$, two-tailed). The magnitude of the differences in the means was large ($\eta^2 = .41$). Thus, it can be claimed that the pictorial instruction was more effective than glossing technique instruction.

5. Discussion and Conclusion

Although a considerable amount of literature has been published on the issue of PVs, as the researcher knowledge there has been little discussion about comparing pictorial instruction and textual glossing technique with regard to instruction of PVs in EAP reading context in Iran. Therefore, the major objective of this study was to investigate the usefulness of two mentioned techniques in EAP context to find which one is more practical in teaching PVs. One of the goals of this study was to answer the first research question: "Does pictorial instruction of phrasal verbs have a significant effect on Iranian EFL learners' learning of phrasal verbs in EAP reading classes?"

This question was followed by the hypothesis that the use of pictorial instruction does not have effect in Iranian EAP classes. Considering the first research question for pictorial group, the results of this study indicate that the pre-test and post-test grades of this group were different and learners outperformed in post-test being exposed to the pictorial treatment. The instruction of PVs and the effect of applying picture in this field is a subject which a number of researchers have studied. In a study by Al Nassir (2012), learners in pictorial group scored higher on recall tests and delayed posttest than learners of translation group in learning English vocabulary.

Another aim of this thesis was to answer the question: Does textual glossing technique have a significant effect on Iranian EFL learners' learning of phrasal verbs in EAP reading classes? The findings show no considerable difference between the means. It indicates that instruction of phrasal verbs by textual glossing technique for this group was not so much effective and the pictorial group was better in this part. The last research question: is there a significant difference between the effects of pictorial instruction vs. textual glossing technique in teaching phrasal verbs in EAP classes, is followed by the hypothesis that there is no difference between the effects of pictorial instruction and glossing technique in teaching PVs in EAP classes.

Considering this question, the results of this study indicate that the pictorial instruction of PVs is effective and works differently from textual glossing technique for the EAP reading context for Iranian students. Learning of PVs which is considered a challenge for EFL/ESL learners can be more facilitated by using different techniques which pictorial instruction is one of them.

The findings of this study indicate that the pictorial instruction was an effective technique in teaching PVs in EAP reading context because this group of learners improved in posttest. Second, the textual glossing technique was not significantly effective in glossing group and their knowledge of PVs did not change significantly after sessions of treatment in posttest. Third and last point to be mentioned is that the result is opposed to the third hypothesis which indicates that there is no difference between pictorial and glossing technique as there is difference between these two techniques in this study and pictorial group significantly outperformed glossing group after receiving treatment. The overall results of this study reflect the fact that using pictorial instruction can be an effective way of teaching PVs in EAP reading context.

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