Corpus-based Instruction and Knowledge of Idioms: Evidence from EFL Learners

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ABSTRACT
This study aimed to investigate the effect of corpus-based instruction on Iranian EFL learners' knowledge of idioms. To this end, 100 students from Islamic Azad University, Tonekabon Branch whose major was English Language Translation, was given an OPT in order to homogenize them. Out of this, 60 students whose score fell one standard deviation below the mean was selected and regarded as intermediate students. Then, the subjects were randomly assigned into an experimental group (n=30) and a control group (n=30). The students in both groups were given a pretest. The experimental and control group used the online British National corpus and a course book, namely Every day idioms for reference and practice, respectively. After the experiment, all the participants were given a post test. The results indicated that there was no significant difference between two groups in relation to dependent variable in pre-test (t58=1.58, p>0.05). The finding showed that the differences in pre-post test scores (2.92) clearly showed the efficacy of concordance in enhancing knowledge of idiom. It was showed that there were significance differences in knowledge of idiom between the groups in post test.

Introduction
Theoretical Framework

Figurative idioms, although neglected before the 20th century, have received a great deal of attention from pedagogical point of view in recent years; it has been partly because of the growing awareness that these inseparable aspects of human language are very frequent in everyday language use. Cooper (1999) arguing for the essential role that idioms play in foreign language learning, remarks that most English speakers utter about 20 million idioms per lifetime; hence, using proper figurative language would be a mark of native-like speech in every language.

On the other hand, teaching and learning idioms is one of the most difficult areas in second language acquisition because most of them have an arbitrary nature. As Charteris, (2002) states, figurative idioms are challenging for SL teachers and learners because the meanings of many idioms do not arise from the sum of their grammatical and lexical parts and this causes difficulties in the systematic instruction of idioms in SL classrooms. As a result, applying a proper approach to teaching idioms has always been of overwhelming interest among language teachers.

Opposed to this view, recent cognitive and corpus linguists believe that the meaning of idioms is not completely arbitrary to be merely learnt through blind memorization. They have inspired new insights into the field of applied linguistics suggesting more insightful and systematic approaches to L2 idioms acquisition (Boers, Demecheleer, & Eyckmans, 2004).

Since Sinclair (1991) concretized the possibilities of processing and analyzing large quantities of text data through corpus linguistic techniques, the applications of corpus linguistic approaches employing authentic language data and empirical evidence have been widely accepted in language teaching and research. As the applications of corpus linguistics develop, the range of corpus-based language learning has widened the perspectives in second and foreign language education for teaching vocabulary, grammar, reading, and writing. At the same time, corpus based discourse analysis of written texts has been developed by using quantitative and qualitative evidence from corpus linguistic approaches.

Corpus-based language learning

A corpus is a large collection of naturally-occurring language text collected in a systematic way that is usually stored and processed electronically. Although corpora existed before computers, the first modern computer readable corpus can be consider the one-million English word Brown Corpus, compiled by Francis and Kučera at Brown University between 1961 and 1964. In the 1970s, the LOB Corpus, a British counterpart, was compiled. Both were assembled primarily for linguistic research. Since then, the sizes of a corpus have become several hundred million words and the possibilities of using corpora have grown beyond simple linguistic research to language teaching and research.

As technology has developed, corpus-based language learning has received an increasing amount of attention from language teachers and researchers who have stated that it is an effective L2 and FL teaching and learning style for course design (J. Flowerdew, 1994; Tribbble & Jones, 1997), teacher development (Allan, 2002; Tsui, 2004), materials (Fox, 1998; McCarthy & O'Dell, 2005; O'Dell & McCarthy, 2008; Willis, 1998), classroom applications (O'Keeffe, McCarthy, & Carter, 2007), vocabulary (Sun, 2000, 2003), grammar (Conrad, 2000; Meunier, 2002), learners' writing skills (Conzett, 2000; Gilmore, 2009; O'Sullivan & Chambers, 2006; Sun 2007), reading (Brodine , 2001), writing feedback (Gaskell & Cobb, 2004) .In language education, corpora have been used in order to develop dictionaries, such as the *Collins COBUILD English Language Dictionary*. In addition, they have also been used to

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develop concordances, or computer programs to be used with ESL and EFL teaching. A concordance, according to Sinclair (1991), is an index to words in a text that provides access to language patterns in a corpus in a systematic way. In addition, a program that generates the concordance line is called a concordance (Sinclair, 1991). The computer generated concordance output can be flexible in length or grammatical boundaries, depending on the settings of the program. Today, thanks to the some corpora and concordances are available online.

Advocates of corpus-based language learning have proposed the application of utilizing the concordance in designing language teaching syllabuses and materials to be used in L2 and FL education (Cain, 2002; Ciesielska- Ciupek, 2003; Davis & Russell- Pinson, 2004; L. Flowerdew, 2001; Fox, 1998; Lewis, 1993, 1997, 2000; Osborne, 2003; Tribble & Johns, 1997; Wichmann, Fligelstone, McEnery, & Knowles, 1997; Willis, 1990; Willis, 1998).They have claimed that the use of corpora in L2 and FL education can provide not only a means of learning about the language and culture, but also opportunities for using it communicatively, with a focus on situated textual meanings rather than just the linguistic forms. Therefore, they state that using corpora in L2 and FL education can be a beneficial aid of developing reading and writing skills and understanding and producing particular texts and types of texts. From the perspective of the language learner, corpus-based L2 and FL instruction can offer a means by which to increase his motivation and render him more autonomous (Woolard, 2000), while allow him to mine language descriptions through the corpus (Aston, 2001).

The unique sorting function used by a concordance, however, can help learners to uncover those grammar rules systematically using the contexts of the vocabulary. The importance of context when learning vocabulary is evident from observations that a word's meaning varies depending on the context. Therefore, context provides helpful information to learners when attempting to learn vocabulary (Nagy, 1997).

Idioms

An idiom is a phrase or sentence whose meaning is not clear from the meaning of individual words and which must be learnt as a whole unit. *(Oxford Advanced Learner's Dictionary*, 1999) In other words, the meaning of an idiomatic expression is not the sum of the individual words.

In the literature, idioms have been defined by many linguists and lexicographers in different ways. Swinney and Cutler (1972, p. 523) define idioms as "a string of two or more words for which meaning is not derived from the meanings of the individual words comprising that string." According to Irujo (1986), an idiom is a conventionalized expression whose meaning cannot be determined from the meaning of its parts. Similarly, Abel (2003) describes idioms as fixed expressions whose figurative meaning is not clear from the literal meaning of their individual constituents.

Apart from difficulties in comprehension and production, idioms are an important aspect in second language learning. Using figurative language is one of the main features of native like language and idiomaticity is a nature of proficiency as well as fluency that language learners are expected to achieve.

The importance of idioms has been emphasized by linguists and language teachers in recent years. Bortfeld (2003) believes that the increasing number of idioms in *Dictionary of American Idioms* (Boatner, Gates, & Makkai, 1975-1995) is indicative of the essential role idioms play in daily language use. In this regard, Moreno (2011) refers to three main reasons why it is so

crucial to teach idioms arguing that because of their high frequency, special attention should be paid to idioms and language teachers should not relegate them to a secondary state in the curriculum:

First, frequent use of idioms makes language learners fluent speakers, and figurative competence in a foreign language is a sign of communicative competence. Moreover, idiomatic expressions which give language variety and character help learners penetrate into culture, customs, and lifestyle of the target language.

Secondly, cognitive linguistic studies have demonstrated the crucial role of memory in learning fixed expressions such as idioms. Hence, the teachability and learnability of idioms and their pedagogical aspect should be taken in to account. Finally, many idioms are constantly changing over time, in order to find out their underlying essence, we have to resort to cultural factors and adopt a diachronic view of the language (such as etymological elaboration).

Statement of the Problem

Many studies conducted on idioms have investigated different processes which are used during L1 idiom acquisition. In spite of this, the processes involved in L2 idioms representation are still a serious challenge in L2 idioms acquisition; as a result, second language learners have major problems in learning idioms. In addition, although L2 learners need to learn how to use idioms to speak fluently, but a large amount of research is on idioms comprehension, and the issues involved in idioms production are not resolved. So, another problem which English learners are faced with is the production of second language idioms. Apart from these problems, many idioms are cultural specific and vary from one language to another. Therefore, understanding and producing idioms are difficult to many Iranian EFL learners who are not completely familiar with the culture of English people.

Significance of the study

Idioms are an important part of any language. So, they should be learnt and thought appropriately since they are part of what is broadly considered to be general English (Moreno, 2011). If teachers are trained on how to design suitable corpus-based tasks, they can help their students get exposed to a broader framework of how English is used for communication by native speakers.

Corpora help students to learn about certain language uses that were not available in any of the traditional tools. In addition, corpora allow students to examine these language features in context. Students who like to use dictionaries and grammar books as references benefited from corpora and used them as a 'complement' to these traditional tools. Another benefit was the fact that corpora helped students get a broader view of language (i.e. corpora could compare spoken and written languages).

The results of this study may have some pedagogical implications. As it was mentioned previously, teaching and learning idioms play a crucial role in acquiring a second or foreign language. So, it has received special attention recently.

The findings of the present study can have significant implications for many teachers: first, rather than applying a single method in teaching idioms, they can use corpora in their idiom classes in order to enhance their students' comprehension of idioms.

The present research can also have implications for students in that instead of the traditional rote learning of idioms, they can try the corpus-based instruction in their own learning experiences.

Research Questions of the Study

Research questions were addressed in this study:

● How does the use of online concordance affect the learners' knowledge of idioms?

● To what extent do male and female learners vary in terms of their use of concordance?

Hypotheses of the Study

Hypotheses were formulated in the current study:

H1: There is improvement in knowledge of idioms of the experimental group.

H2: there is variation in knowledge of idioms of female and male subjects in both groups.

Methodology
2. Methodology

2.1. Subjects

The participants consisted of 100 adult students who studied English as a foreign language at Islamic Azad University, Tonekabon Branch. They were all translation students. The age of the participants ranged from 18 to 26. They were all non-native speakers of English, and their first language was Persian.

At first, in order to homogenize the participants, an OPT was administered, and 60 students whose score fell one standard deviation below the mean were selected and considered as intermediate students. The subjects were randomly assigned either to the experimental group (n=30) or control group (n=30) consisting 15 male and 15 female subjects in each group. A pretest of idioms was given to both control group and experimental group. Then, an introduction session was offered to the participants in the experimental group. During the introduction session, the students were informed about the purpose of this study and how to use online concordance. The subjects were asked to use the online British National Corpus. Students in the control group, on the other hand, was taught the idioms through a course book, *Every day idioms for reference and practice by Ronald E., Fear*. After 5 sessions, the participants in both groups were given a post test.

2.2. Materials

To minimize the effect of participants' prior knowledge of the target idioms the second pretest was administered. The test included 100 items containing idioms which would be presented during the treatment. Each item consisted of a short sentence which included one selective idiom. The participants had to write the Persian translation of the idioms. All the 100 idioms were unfamiliar to 95 percent of participants. Therefore, all 100 idioms were selected for inclusion in the post tests. The time allocated for this test was 100 minutes. The main material presented to the participants was 100 English idioms selected from *American Heritage Dictionary Of Idioms* from among which 60 idioms were selected and used in the post tests.

Two kinds of post tests were used in this study:

A: comprehension test: a 30- item multiple choice test was used to measure the participants' receptive knowledge of idioms. The time allocated to this post test was 30 minutes.

B: production test: a 30- item fill in the blanks test was used to measure the participants' productive knowledge of idioms. The Persian definition of the idioms was given in the parentheses to help the students fill in the blanks. The time allocated to the production post test was 45 minutes.

A book was used in this study for the control group, *Every day idioms for reference and practice by Ronald E., Fear*.

Online British National Corpus was used in the experimental group.

2.3. Procedure

60 subjects were selected and assigned randomly into experimental and control groups. An introduction session was offered for the participants in the experimental group. During this session, the students were explained about the purpose of the research, how they should use online concordance.

To minimize the effect of participants' background knowledge of the target idioms to be taught, a pretest was administered. The test included 100 idioms, each presented in a sentence, and the participants had to write the Persian translation of the idioms. Idioms were taught to the control group through a course book, *Every day idioms for reference and practice by Ronald E., Fear*, and in the experimental group online British National Corpus was used.

At the end of the experimental period, two post-tests were administered to investigate the effects of corpus-based instruction on learners' comprehension and production of idioms.

Results

As mentioned earlier, 60 subjects were assigned randomly into experimental and control groups. As, according to low scores in a test of idiom, subjects matched together two by two , and then one of them placed in the experimental and the other one placed in the control group randomly. To become sure that the means of variables in two groups are not statistically different, independent t-test was used. Results showed that there is no significant difference between two groups in relation to dependent variable in pre-test $(t=1.58, p>0.05)$.

Table 1: Independent t-test for dependent variable in pre-test

Variable	Statistics Groups	Mean	SD	MD	t-test	DF	Sig
Variable name	Experimental	8.68	2.47	1.05	1.58	58	0.120
	Control	9.73	2.68				

H1: There is no improvement in knowledge of idioms of the experimental group.

Table 2 shows total mean, standard deviation and mean difference of experimental and control group in pre-post test

Groups	Times	M	SD	MD
Exp.	Pre	8.68	2.47	
	Post	11.60	2.04	2.92
Ctrl.	Pre	9.73	2.68	
	Post	10.05	1.86	0.32

Table 2, shows mean differences between two groups in post-assessment. This table indicates that the mean score of the experimental group considerably is more than control group in post-test.

Table 3: Results of repeated measure ANOVA for the efficacy of concordance on knowledge of idiom

Source of variation	Sum of squares	Df	Mean squares	F	Sig
Within subject effects					
Time	99.46	1	99.46	23.95	0.000
Time*group	55.01	1	55.01	13.34	0.001
Error	240.87	58	4.15		
Between subject effects					
Intercept	12286.69	1	12286.69	273.5	0.000
Group	2.78	1	2.78	0.44	0.509
Error	365.25	58	6.30		

As shown in the table 3, Repeated measure ANOVA showed that the effect of concordance on knowledge of idiom was statistically significant *F (1, 58) =23.95, p<0.001.* It indicates that the differences in pre-post test scores (2.92) clearly showed the efficacy of concordance in enhancing knowledge of idiom. So, the first hypothesis is rejected. Further, the combination of time*group showed a significant effect in decreasing knowledge of idiom. *F (1, 58) =13.34, P<0.01).*

Further, between subject effects showed that the effect of group in relation to the effectiveness of concordance intervention in enhancing knowledge of idiom was not statistically significant *F (1, 58) =0.44, P>0.05).*

The Effect of gender on knowledge of idiom

Table 4: Mean scores of pre and post test for experimental and control group on knowledge of idioms with respect to gender

Groups	Gender	Pre		Post		Change
		M	SD	M	SD	
Experimental	Female	9.22	2.73	13.52	1.39	4.3
	Male	8.15	2.14	10.20	0.89	2.05
	Total	8.68	2.47	11.86	2.04	3.18
Control	Female	10.23	2.63	11.37	1.82	1.14
	Male	9.23	2.73	9.03	0.94	0.20
	Total	9.73	2.68	10.20	1.86	0.47

As shown in the table 4, the mean score and standard deviation of females in pre-test was (*M=9.22; SD= 2.73*) and in post-test was *(M= 13.52; SD= 1.39)* indicating a change (increase in idiom knowledge) of 4.3 score from pre to post test in experimental group.

The mean score and standard deviation of male in pre-test was *(M=8.15; SD= 2.14)* and in post-test was (M= 10.20; SD= 0.89) indicating a change (increase in knowledge of idiom) of 2.05 score from pre to post treatment in experimental group. In control group the mean score and standard deviation of females in pre-test was *(M=10.23; SD= 2.63)* and in post-test was (M= 11.37; SD= 1.82) showing a change (increase in knowledge of idiom) of 1.14 score from pre to post treatment. The mean score and standard deviation of male in pre-test was *(M=9.23; SD= 2.73)* and in post-test was (M= 9.03; SD= 0.94). Further, the total change observed in control group was 0.47. In the other words no change seen from pre to post treatment sessions in the control group.

Hypothesis 2: gender differences don't influence the effectiveness of concordance on knowledge of idiom

Table 5: Results of repeated measure ANOVA for gender-wise comparisons

Source of variation	Sum of squares	Df	Mean squares	F	Sig
Within subject effects					
Time	99.46	1	99.46	21.22	0.000
Time*gender	24.08	1	24.08	6.14	0.017
Error	271.80	58	4.69		
Between subject effects					
Intercept	12286.69	1	12286.69	2.78.03	0.000
Gender	111.65	1	111.65	25.26	0.000
Error	256.38	58	4.42		

As table 5 shows, a significant difference was observed from pre to post assessment in relation to corpus-based instruction and knowledge of idiom irrespective of gender, F (1,58) = 21.22, p= 0.000. When gender-wise comparison was made (time*gender), the F value (1, 58) = 6.14, p<0.05 show a significant differential increase between boys and girls on knowledge of idiom in post assessment. Further, table 5 shows a significant difference in between subject effects F (1.58) =25.26, p<0 .001indicating a significant difference between females and

males on knowledge of idiom in post treatment. So, the second hypothesis is rejected.

Effect size calculations

Cohen's d was calculated to see effect size which indicates the magnitude of change (improvement). Statistically significant difference may not reflect on the significance of change and effect size is more informative than p-value in interpreting the treatment - related response. Cohen's (1998) classification schedule was used to evaluate the magnitude of change based on the mean and standard deviation. Effect size ranges from 0.20 to 0.49 (small), 0.50 to 0.79 (medium) and >0.80 (large).

Table 4.50: showing the effect sizes on different dependent variables

Variables	Groups	Cohen's d	Effect size	Interpretation
Variables name	Experimental	2.83	0.82	Large
	Control	0.17	0.08	Small
	Between groups	2.42	0.77	Medium

Table 4.50 shows Effect size calculations for outcome variables using Cohen's d. Results indicate d large effect size for the effect of concordance on knowledge of idioms (0.82), a medium effect size for the effect of group (experimental and control) on knowledge of idioms (0.77). In other words, 82 percent of change in knowledge of idioms is explained to the effect of concordance interventions, and the group (experimental vs. control) explained 77 percent of variance of knowledge of idioms. In control group the amount of effect size calculated to the effect of concordance on knowledge of idioms was (0.08) indicating a weak effect size.

Conclusions

The main purpose of the study was to determine the effect of corpus-based instruction on EFL learners' knowledge of idiom. Results showed that there is no significant difference between two groups in relation to dependent variable in pre-test *(t=1.58, p>0.05).* The finding showed that the differences in pre-post test scores (2.92) clearly showed the efficacy of concordance in enhancing knowledge of idiom. It was showed that there were significance differences in knowledge of idiom between the groups in post test.

Limitations of the Study

Several limitations were involved in the present study. The sample size of this study was not very large. The cultural limitations and the participants' level of proficiency, which was limited to intermediate, may be regarded as other limitations of the study. Finally, due to learners' linguistic background as well as time limitations, the results of the study must be cautiously interpreted.

Suggestions for the further research

The present study did not aim to investigate the age of the participants. As learners in different age groups tend to be more eager to specific strategies in learning idioms (for example in Cain and Knight (2009), very young learners were more successful in inferring from context than adults), age can be an important independent variable that has not been taken in to account in this study. Therefore, this study can be replicated with participants of different age levels.

The present study was carried out with intermediate male learners, and it can be replicated with learners at different levels of proficiency.

Finally, this study did not investigate the participants' attitudes towards corpus-based instruction. Thus, more studies need to examine the learners' attitudes.

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