

Acquiring English Language Prepositions by Iranian EFL Learners: The Effect of Proficiency and Gender

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Abstract. This study was an attempt to examine the relationship between Iranian EFL students' general knowledge of English and their use of English prepositions. To discover whether there was any significant relationship between EFL university and high school students' English proficiency level and their performance on a preposition test, three groups of beginning, intermediate, and upper intermediate students have been selected based on their scores in the TOEFL test. In addition to investigating the relationship between the level of proficiency of the learners and their use of prepositions, the present study was also an attempt to examine the differences between the female and male participants in using the prepositions. For this purpose, 32 male and 58 female learners were selected to investigate the effect of gender. All of the participants were requested to provide answers to the preposition test developed by the researcher. The results of the correlation coefficient test showed that there was a moderate and significant relationship between the learners' proficiency level and their use of prepositions. The analysis of the second research question indicated that there were no significant differences between the gender of the participants and their use of prepositions.

Keywords: English language prepositions, proficiency, gender

1. Introduction

A substantial number of studies in second language (L2) acquisition have shown that second language learners experience difficulties in acquiring the constructions in the target language similar to those in their native language. A good example of two different constructions that instantiate a potential learnability problem is the case of prepositions. The appropriate use of prepositions has always been a source of confusion and nuisance to the Iranians EFL learners. This problem is so acute that even highly advanced learners of English are not quite at ease with it while writing or speaking English and more often they use wrong prepositions. Apart from the problem of correct use of prepositions which most English learners face, one of the questions that has always caught attention is whether there is any possible relationship between language learners' level of proficiency and the degree of difficulty and/or ease in the use of prepositions. The present study has set the investigation of the degree of the relationship between the EFL learners' proficiency level and the correct use of prepositions as its main goal.

2. Literature Review

2.1 What is preposition?

Prepositions are the most frequently occurring type of words in the English language. So they are a pretty important word group to understand. There are numerous definitions of the word "preposition". A preposition is a word that explains the time, space, or logical relationship between the other parts of the sentence. In other words, it links all the other words together, so the reader can understand how the parts of a sentence fit. Prepositions are also defined as typically polysemous items that can be explained and studied through prototype theory (Rice et al., 1999). Prepositions cause problems for second language learners because students translate them from their native language to the target language, and also sometimes they misunderstand that an adjective in their native language is a verb in the target language, e.g.: Incorrect:

I enjoy of time.

Correct: I enjoy the time.

2.2 Studies of prepositions

Although teaching prepositions in a foreign language is becoming more and more commonplace, there are very few studies available on its relationship with the students' proficiency. The scarcity of studies is worth mentioning, especially in the contexts where English represents the L2 in the school curriculum.

One of the studies which has investigated the role of prepositional phrase (PP) attachment in preposition generation is that of Lee and Knutsson (2008). Their research is concerned with "the task of preposition generation in the context of a grammar checker" (P. 643). They maintain that:

Relevant features for this task can range from lexical features, such as words and their part - of-speech tags in the vicinity of the preposition, to syntactic features that take into account the attachment site of the prepositional phrase, as well as its argument adjunct distinction (p.643).

These scholars also believe that "preposition usage is among the most frequent types of errors made by non-native speakers of English" (p. 643). Due to this fact, they embark on developing a system that can automatically detect and correct preposition usage. This system would be valuable given the fact that an analysis of texts written by students in English-as-a second-language classes reveals that errors involving prepositions form the largest category constitute at about 24% of the whole structural errors (Lee & Knutsson, 2008). Lee and Knutsson emphasize that they have managed to show that the "knowledge of the PP attachment site can improve accuracy in preposition" (p. 653). In other words, in a memory-based learning framework, the improvement is especially substantial when similar training instances are available and a back-off decision must be made.

In another research project, Tetreault and Chodorow (2008) worked on the ups and downs of preposition error detection in ESL writing in order to describe a methodology for detecting preposition errors in the writing of non-native English speakers. The system they developed actually performed at 84% precision and close to 19% recall on a large set of student essays. In addition, they "address the problem of annotation and evaluation in this domain by showing how current approaches of

using only one rater can skew system evaluation” (p. 865). The study has two contributions to the field of error detection in non-native writing. First, a system that detects preposition errors with high precision (up to 84%) and is competitive with other leading methods and second, the emergence of a standard approach to evaluating NPL error detection system when the annotation is only by one rater.

Other scholars have also worked on the detection of grammatical errors involving prepositions. For example, Chodorow, Tetreault and Han Na-Rae (2007) have worked on the detection of preposition errors of non-native speakers of English. They have also come to the conclusion that “prepositions account for a substantial proportion of all grammatical errors by ESL learners” (p. 1). To address the question of why prepositions are difficult to master, Chodorow, Tetreault and Han Na-Rae hypothesize that perhaps it is because they perform so many complex roles. They further assert that in English, prepositions appear in adjuncts, they mark the arguments of predicates, and they combine with other parts of speech to express new meanings.

2.3 Early emphasis on learning structures

Some of the behaviours for learning the structures in the target language may emerge in the classroom naturally, but most need to be developed through tasks and activities from the beginning of the language learning experience. Doiz and Lasagabaster (2004) argue that the early teaching of the structures in the target language has a beneficial effect on the writing ability of the learners. In their study, the experimental group outscored the control group in the holistic evaluation of its texts. The integration of early teaching of target language structures into the classroom program fosters the development of the communicative competence of the students. The input to which the learners are exposed in the foreign language learning situations is limited to classroom time. The proficiency level of L2 learners in this study was advanced so that they had acquired the structural and thematic properties in the use of prepositions.

Therefore, students should not be taught about the differences between the target language and their mother tongue since this may cause

negative interference. And, the teaching of structures, especially prepositions are of no exclusion. The teacher should attempt to teach the structures solely in the target language in order for students to retain the structures for a long time. Most of the problems of acquiring the prepositions by the Persian students are caused because of their frequent comparisons of the structures with those of their mother tongue. The background behind the present research project is the centrality of preposition use as one of the major problems in English language learning process.

2.4 Research questions

This study was an attempt to answer the following questions:

- 1) Is there any significant relationship between the English language learners' proficiency level and the degree of difficulty/ease they experience using prepositions in an English preposition test?
- 2) Is there any significant relationship between the English language learners' gender and the degree of difficulty/ease they experience using prepositions in an English preposition test?

3. Method

3.1 Participants

Two groups of intermediate and upper-intermediate English language learners at the University of Tehran and one class of beginner students in a language center in Tehran were selected for this study. Each group consisted of 30 male and female students. The first group included 30 beginners (12 females and 8 males); the second group consisted of 30 intermediate learners of English (16 females and 11 males) and the last group included 30 upper intermediate (30 females and 13 males) learners of English. Most participants had knowledge of English as a foreign language. The intermediate and upper intermediate learners that were selected according to their proficiency scores were freshman TEFL students. The other class in the language center consisted of students who were junior (32%) and mostly senior (68%) students.

The classes in which the university students were enrolled were "Advanced Writing Courses" and included one and half hours of instruction weekly, which focused on grammar, written skills, comprehension and

communicative interaction in the classroom. Grammar instruction was limited to textbook exercises. A review of the textbooks used within the program, as well as individual consultations with the English teachers in the program, indicated that L2 learners had not received formal instruction on the communicative and accurate use of prepositions.

3.2 Instrumentations

The two instruments used in the study include the following:

- a) The preposition questionnaire.
- b) TOEFL test (Test of English as a Foreign Language).

Below is a full account of the characteristics of each of the instruments.

3.2.1 Preposition questionnaire

To answer the research questions formulated in this study, a questionnaire was developed. The major advantage of the questionnaire is that data can be collected from a large number of respondents in a cost-effective way within a short period of time. In constructing the questionnaire, the following steps were taken:

First, in order to explore the students' major problems in using prepositions, a writing task was used. Forty male and female students (13 junior high school, 10 senior high school, and 17 university students) were asked to write about this topic: "Going out without water can be dangerous". They were asked to write their thinking in English so as to detect their ability in employing different prepositions and were given 20 minutes to write down their ideas. The writings were analyzed, coded, and categorized in order to find the most frequent problematic preposition categories.

Items of the questionnaire were developed. Then, five experienced teachers were asked to read the items and provide feedback in order to find possible shortcomings and problems of translation. Based on the feedback received from the group, a final version of the questionnaire was developed.

Finally, on the basis of the results of the students' writing task and the developed questionnaire related to preposition use, the questionnaire's initial pool of items was created. The initial list of items was subjected to judgment for redundancy, content validity, and clar-

ity. When multiple forms of each item were eliminated, 69 items remained. These items were revised in order to reduce the large list of items pool. The revision of items resulted in the deletion of some redundant items, the collapsing of some items into one, and the addition of some new items. Then, based on the revision of the list of items pool, a near-final version of questionnaire was developed and the items pool was reduced to 40 items (see Appendix A).

In order to find the possible drawbacks of the questionnaire, a pilot study was conducted. The questionnaire was administered to a group of 32 students who were very similar to the target population the instrument was designed for. Nine questionnaires were excluded because they were returned blank or incomplete. Responses to the items on the questionnaire were evaluated as either correct or incorrect.

In order to confirm and validate the instrument of the pilot study, an exploratory factor analysis was conducted using a principal components analysis followed by a Varimax rotation method. This procedure was used both to reduce a large data-set and to identify clustering items in the scale. Based on the factor loadings results, several items were eliminated from the analysis because they exhibited low factor loadings (less than .30) or loaded highly on more than one factor. The factor analysis was recalculated after the elimination of these items. Based on the results of the factor loadings, the list of items was subjected to judgment for redundancy, content validity, and clarity. This revision resulted in the elimination of some irrelevant or redundant items, the rewording of problem items, and the addition of some new items to cover omissions. The Cronbach-alpha coefficient value for the overall reliability analysis of the questionnaire was found as .87 which showed a satisfying level of reliability.

3.2.2 TOEFL test

The proficiency instrument employed in the study was a TOEFL test developed by ETS (English Testing Service, 2003). It consisted of 40 grammar items and 50 items about vocabulary and reading comprehension.

3.3 Data collection procedures

The TOEFL test and the questionnaire were administered to the stu-

dents. The test of proficiency was answered within the allotted time.

Based on the results of the TOEFL test, the participants were divided into three groups of proficiency: beginning level, intermediate level, and the upper intermediate level.

The final version of the questionnaire consisted of 40 items, generated from the data collected in the pilot survey. It consisted of two parts: the first part elicited the background information regarding students' gender. The second part asked for students' choices of the prepositions in different sentences. The students received instructions both orally and in writing. They were required to choose one of the alternatives.

3.4 Data analysis

The items were codified and entered into SPSS program for windows, version 17. A correlational analysis was used to determine whether there was a meaningful relationship between participants' level of proficiency and their accurate preposition use. Descriptive statistics was used to determine the mean and standard deviations. A *t*-test was used to see whether there was a difference between males and females in terms of the prepositions they used.

4. Results

4.1 Preposition use and students' level of proficiency

To answer the first research question, the descriptive statistics including means and standard deviations were calculated and then a Pearson Correlation Coefficient was carried out. Table 1 presents descriptive statistics which show the means and standard deviations of the different proficiency levels. The finding of this study indicated that the level of proficiency had an effect on the ability of the participants in the use of English prepositions.

Table 1: Descriptive statistics of preposition use across proficiency levels

	Mean	SD
Low proficiency	2.80	.75
Intermediate proficiency	2.44	.89
Upper intermediate proficiency	3.92	1.22

Pearson Correlation Coefficient was conducted to examine the relationship between students' level of proficiency and their preposition use. Results are presented in Table 2 below.

Table 2: The relationship between the level of proficiency and preposition use

		proficiency
Preposition	Pearson Correlation	.492(**)
	Sig. (2-tailed)	.000
	N	100

** Correlation is significant at the 0.01 level (2-tailed).

As can be seen, the correlation between the proficiency of the learners and the use of prepositions ($r = 0.492$) is significant at 0.01 level ($p = 0.000 < 0.01$). The results of the analysis showed that there is a moderate but significant relationship between the two variables of the study, with the upper-intermediate learners outperforming the other learners in their accuracy of preposition use. This is to say that the performance of the learners in the preposition test is directly related to their level of proficiency.

4.2 Preposition use and students' gender

The process of the data analysis for the second research question began with computing the descriptive statistics of male and female students on preposition use. Table 3 presents descriptive statistics which show the means and standard deviations of the different preposition use classified according to the students' gender. The findings of this study indicated that although females' mean scores were a little different from those of males, there were not very acute differences among them totally.

Table 3: Descriptive statistics of preposition use for male and female students

		Mean	SD
Preposition use	female	14.000	2.7636
	male	13.740	3.4312

However, in order to achieve more reliable results, an independent-samples *t*-test was used to determine if there was a difference between the learners' gender and their use of prepositions. The results of the independent-samples *t*-test are shown in Table 4 below.

Table 4: Independent samples *t*-test results for preposition use across gender

Levene's test for equality of variances		t-test for equality of means					95% confidence interval of the difference		
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
Equal variances assumed	2.387	.128	.311	87	.757	.2600	.83518	-1.41506	1.93506
Equal variances not assumed			.305	45.870	.762	26.000	.85178	-1.45468	1.97468

In line with the results of the Levene's test, the results of *t*-test showed that there was not a significant difference in the use of prepositions between the male and female participants ($t(87) = 0.311$, $p = 0.757$). Therefore, all the participants used these prepositions in the same way. Figure 1 shows that there are only very minor differences between the male and female participants.

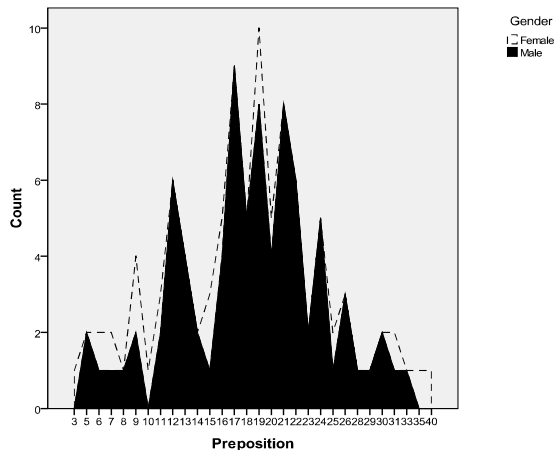


Figure 1. The preposition use by male and female participants

5. Conclusion

Regarding the first research question, the results of the present study indicated that there was a significant relationship between the level of proficiency of the learners and their use of prepositions. Given the fact that all of the prepositions were of the phrasal verb type, one might possibly have expected the ratings for these prepositions to be lower for the beginning and intermediate students in comparison with the upper-intermediate students, given their difficulty under all views for lower levels of proficiency. One possible reason for this better acceptability of the upper-intermediate participants may relate to the Contrastive Analysis Hypothesis (CAH). This hypothesis argues that the acceptability of the structures must be accounted for by the interactions of psychological factors (such as transfer).

According to Keshavarz (1993), the concept of transfer which can be considered as the fundamental issue in CAH is of two kinds. The first kind is the “positive transfer” when an old habit facilitates the formation of a new habit. The second kind is named as the “negative transfer” when the old habit impedes the formation of a new habit. It is assumed that the main reason behind the negative transfer is the interaction between the first language of the student with his second language. The relative acceptability of structures would thus depend in part on how straightforward it is to imagine the list of first language properties (in this case prepositions) which would correspond to each of the target language equivalents in a given context. Foreign language learners do not have empty capacities in their prior linguistic experience, so prepositional transfer is not an unfamiliar option to utilize.

In the questionnaire used in this study, sentences included phrasal verbs, some of which corresponded to the prepositions in the native language of the students and some others did not.

Therefore, it might be concluded that because the upper intermediate learners have a higher level of proficiency compared to the beginners and the intermediate learners, they do not compare their native language with the target language as much frequently as their lower level peers do; thus, there exists less difficulty for them in figuring out the prepositions of the phrasal verbs. In relation to these ideas, Ellis (2008)

argues that L1 transfer depends on the developmental factors and further explains that:

Whereas some researchers have claimed that negative transfer is more evident in beginners, other researchers have argued that learners may need to reach a certain stage of development before transfer of some L1 properties becomes possible. In general, except possibly where phonology is concerned, the evidence does not support the claim that interlanguage constitutes a restructuring continuum. Transfer interacts with natural principle of L2 acquisition, sometimes occurring early on and sometimes later. It can both retard and accelerate natural development (p.397).

Overall, the findings show that the phrasal verbs in the target language of the Persian-speaking learners instantiate a potential learnability problem because:

- the phrasal verb constructions are superficially very similar to the native language of the learners but display distinct morphological and syntactic behavior;
- differences between the phrasal verbs and the prepositions following them in the native and the target languages of the learners are typically not subject to explicit instruction.

Prepositions play a crucial role in our understanding of the developmental phenomena in second language acquisition. As a case in point, we can argue that the analysis of prepositions has led to important developments underlying the fundamental differences between the native and the target language development. This study leads to important findings regarding the use of particular constructions in the interlanguage of the learners. Teachers, then, can tell by how much their students have learned so far and what remains for them to teach next.

The second research question of the present study dealt with the differences between male and female participants in using English prepositions. The finding of an absence of gender differences overall was not unexpected. Both genders have some prior experience in their minds about the structures in their first language and they naturally use this information to form the correct and appropriate structures in the target language. The findings of this study clearly show that participants

of both genders had a substantial awareness and control of their structural activities while reading the prepositional phrases. The information provided by the participants demonstrated that prepositional decoding is a complex process in which they consciously and actively invoked a repertoire of prior knowledge. The implications for language teachers are clear. If language teachers become aware of these similarities and differences, they can prepare better and more successful classroom activities that cater for the variation and the similarities. Therefore, the results imply that it is important for instructors to enhance the structural awareness of both genders, because it may lead to more active engagement in language learning process.

Implications for practice must be considered tentative at this point, awaiting replication and further construct validation of the balanced preposition use instruments. At a minimum, the findings of the present study give some significant implications. It is critical for classroom teachers to be more aware of their students' difficulty in learning and using the prepositions and ensure that their courses present enough information that appeal to students in different grade levels. EFL teachers can help their students become self-directed and effective language learners by integrating language structures instruction into regular language lessons and make their students more aware of the use of prepositions in different contexts. Language teachers benefit from findings to promote students' structural understanding by means of paying attention to the structural organization of learning and teaching, to provide students with useful learning opportunities and effective structural instruction according to their needs, purposes and goals. In order to improve their students' efficient development of the communicative competence, teachers should pay more attention to the choice of teaching methods and personal behaviors that can increase students' motivation and interest in second language learning. In addition, teachers should bear in mind that students have to be taught in a meaningful way to master all language skills, instead of concentrating solely on memorizing vocabulary and grammatical rules at the expense of the oral skills.

Moreover, the instructional material developers should modify learning contents and materials to meet the students' problems in the use of

prepositions. To design a syllabus for learners, it is essential to pay attention to their needs, likes and dislikes. The real difficulty of the foreign language learners results from the fact that they consciously learn the structures and the properties of the target language such as prepositions in the classroom, yet they do not have much opportunity to use them in real contexts. One type of syllabus which can help learners develop and enhance their subconscious use and employment of the prepositions is a task-based syllabus. This type of syllabus provides learners with an opportunity to use the prepositions for their immediate purposes, and it also leads to the development of positive attitudes towards foreign language learning to further develop their proficiency after leaving school. The students can develop their use of structures if they are regularly required to use them in classroom activities. Task-based syllabuses require the employment of different types of prepositions. Learners with limited proficiency experience more difficulty in using the prepositions and need more practice in the form of role plays, games and other kinds of tasks. Different types of guessing games are very effective for the students. Prediction tasks (in which learners are required to guess what would happen next) also require learners to use the language creatively.

Two limitations are present in this study. First, the participants of this study were recruited from one university. Although they were representative of college students in that region, future studies should include students from different regions so that the results can be more generalizable. Second, other instruments can be used to gather more reliable data from the participants.

Last but not least, it has to be said that further research should be done to further characterize the effect of gender, proficiency and possibly age, and other individual variables on structural and especially prepositional learning. Studies should be done to determine which instruments are most appropriate for accurately measuring the prepositional use.

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Appendix A

Choose the correct preposition (in, about, for, to) to fill in the blanks.

1. I am very grateful you.
2. I hope you are familiar this subject.
3. He is accustomed his professor.
4. That student always disagreesme.
5. I assume that you are acquainted this subject since you are responsible writing the accompanying materials.
6. Our school associated that organization.

7. It is difficult to contribute this fund when we are not committed its mission.
8. We have been very satisfied his results.
9. The teacher was upset the student's behavior.
10. I am interested your analysis.
11. We all object . . . to the use of this money for personal purposes.
12. I apologize our mistake.
13. We do not approve such trivial questions and are not willing to take responsibility to them.
14. Now that we are finished the hard subjects, we look forward next year.
15. Our lab is equipped the latest state-of-art computers.
16. The product is made pure gold.
17. Never become involved a questionable deal.
18. It is important that we coordinate our efforts each other.
19. We are not limited our approach.
20. I hope you succeed this research.
21. we want to thank you your cooperation.
22. Our university is prohibited . . . doing business that country.
23. I want everyone to participate the discussion group.
24. You would be wise to take advantage this free tutoring.
25. Are you aware the cost?
26. He refused to comment the problem.
27. What is the reason Hong Kong's air pollution?
28. Can we meet to discuss the policy changes?
29. What are the main differences US English and the English spoken in the UK?
30. Graduates should consider their career goals.
31. They were asked to participate the interviews.
32. Obviously you need to adopt changing circumstances.
33. Applicants who filled the questionnaire were then chosen randomly.
34. Students can learn more grammar by visiting university language center websites.

35. Some authorities are now claiming that chocolate may be good . . . you in moderate quantities.
36. The probability winning a lottery is actually higher than being struck by lightning.
37. The ancient Roman Empire, which included most of Europe and Asia Minor at its height, was primarily based agriculture.
38. workers often go on strike when their salaries don't keep pace with increases in the cost living.
39. I wasn't sure if you'd be satisfied the report I handed in last week.
40. Not knowing local customs can often lead misunderstandings when people go abroad.