The Effect of Using Translation on Learning Grammatical Structures: A Case Study of Iranian Junior High School Students

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Abstract
The role of L1 in second/foreign language learning has been the subject of much debate and controversy. This article reports on a piece of research carried out in a junior high school in Isfahan, Iran. This study was conducted to examine the effect of using translation from L1 to L2 on the improvement of EFL learners' language accuracy. To fulfill the purpose of the study, 62 students in grade three of junior high school were chosen by means of administering a researcher made pretest. The participants were divided into a control group and an experimental group. The experimental group received grammar exercises in translating some phrases and sentences from Persian into English related to the intended grammatical structures during the study period while the control group just did their textbook exercises. At the end, a post-test was given to the students and the mean scores of the two groups were identified. Using t-test revealed that the treatment had a considerable effect on students' language accuracy.

Keywords: First Language (L1), Second Language (L2), Foreign Language (FL), Translation, Grammatical accuracy

Introduction
Many Iranian EFL teachers use the L1 (Persian) in EFL classrooms to various degrees. These teachers argue that L1 should be used especially at the lower levels since exclusive FL (English) use might make learners experience anxiety, demotivation and finally withdrawal from FL classrooms. On the other hand, there is a growing feeling among Iranian EFL teachers that traditional methods are completely ineffective and many associate L1 use with the traditional language teaching methods such as the Grammar Translation Method that allows excessive L1 use. These teachers argue that L1 should not be used at all, and they teach their EFL classes entirely in English. It seems that by adopting the new trends in teaching methods, these teachers are ignoring the...
role of L1 in EFL classrooms without giving it a second thought.

Having knowledge about teaching methodologies can help FL teachers better teach their students and make correct decisions concerning when to use L1 in FL classrooms. More importantly, as a result of such studies, EFL teachers will be able to recognize when it is necessary to use L1 and when to use only FL to effectively facilitate students' FL learning and motivate them to overcome their learning problems. This study is to fill the gap in the research area since the effect of translation from L1 to L2 on improving the linguistic accuracy of junior high school students has not yet been investigated.

2. Literature Review
The use of L1 in EFL classrooms has always been a controversial issue because different theories of L2/FL acquisition have different hypotheses about the value of L1 use in L2/FL classes. Some researchers have argued that using L1 in the classroom may facilitate L2/FL acquisition (Al-Nofaie, 2010; Cook, 2007; Levine, 2003; Macaro, 2001; Schweers, 1999). On the other hand, another group of researchers have expressed ideas against the use of L1 (Baker, 2006; Harmer, 2001; Prodromoue, 2002).

Advocates of the monolingual approach suggest that the target language should be the only medium of communication, believing that the prohibition of the native language would maximize the effectiveness of learning the target language. Polio and Duff (1994) claim that using L1 in the classroom conflicts with SLA theories and argue for modified input and negotiation in L2/FL as a way of learning. Nation (2003) states that when teachers use L1, the class becomes a grammar-translation one. Baker (2006) believes that if L1 support is provided, it deprives learners of the opportunity to progress in content subjects.

The monolingual approach has been criticized by many teachers who find that the use of L1 in EFL classes is beneficial at various levels. They believe that the use of the mother tongue can be helpful in learning new vocabulary items and explaining complex ideas and grammar rules. They contend that teachers who master the students' native language have more advantages over the ones who do not. This point of view is expressed clearly by Deller and Rinvulucr (2002) in their book 'Using the mother tongue'. Their book provides practical L1 activities and shows that judicious use of L1 can maximize language learning.

Avand (2009) states that total immersion programs deprive users of mother-tongue support that can be useful to adults' ability to assess their progress toward learning the target language. Nation (2003) believes that using L2 can cause embarrassment especially for shy learners and those learners who feel they are not good at the L2. L1 has been used by foreign language learners to facilitate language learning for centuries; however, it has become a popular belief among teachers that the transfer of L1 gets in the way with the acquisition of L2/FL. Even in the current most popular communicative language teaching (CLT) approach, students' native language has no particular role in the classroom.

While many foreign language educators may have ignored the role of translation in language teaching, from the learners' perspective, translation is still widely used in their learning (Chamot& O'Malley, 1987). Stibbard (1994) analyzed the use of oral translation as an L2/FL teaching activity. He suggested that translation may play a valuable role in L2/FL teaching. Moreover, he asserted that translation should be an integral part of the language learning program. Although new teaching methods give more prominence to fluency rather than accuracy, many research studies
support the idea that accuracy is, at least, as important as fluency, and they should be used integrally in L2/FL teaching.

Weschler (1997) shows that by combining the best of the "grammar-translation" method with the best of "communicative" methods, a new and more powerful hybrid can emerge in which the focus is more on the negotiated meaning of the message than its sterile form. He calls his coinage "The Functional-Translation Method" (FTM). Its goal is to allow students to learn the useful English they want to learn as efficiently and enjoyably as possible. This entails taking advantage of the knowledge they already possess in their L1 as well as their innate, higher-order cognitive skills.

Cook (2001) states that the word 'translation' has been avoided because of its negative implications in teaching. Although translation is still widely used throughout the world, no teaching methodology exists that supports it and many speak out against it (Richards & Rodgers, 1986). However, current research reveals that today's translation activities have little to do with the previous method, which occurred in a non-interactive teacher-centered classroom with few activities aside from the translation of difficult, non-relevant, and often boring texts (Bonyadi 2003; Owen 2003).

Professionals in second language acquisition have become aware of the role of mother tongue in the EFL classrooms. For example, Nunan and Lamb (1996) state that prohibition of mother tongue at lower levels of English proficiency is practically impossible. In support of the role of L1, Cook (2001) asserts that "bringing L1 back from exile may lead not only to the improvement of existing teaching methods but also to innovations in methodology" (p.189).

Cianflone (2009), in his research on L1 use in English courses at the University of Messina in Italy, found that the interviewed students and teachers seem favorable to L1 use in terms of explanation of grammar, vocabulary items, difficult concepts and for general comprehension. He concluded that students seem to prefer L1 use and teachers subscribe to using L1 judiciously. Such use, being at the university level, may save time and increase students' motivation.

Rolin-Ianziti and Varshney (2008) investigated the use of L1 in FL classrooms at an Australian university. They discovered that many students considered the use of L1 necessary for vocabulary and grammar learning. Students believed that L1 use helps them understand vocabulary and grammar better because it makes grammar explanation easier.

Vaezi and Mirzaei (2010) investigated the effect of using translation from L1 to L2 on the improvement of EFL learners' language accuracy. They concluded that using translation improves linguistic accuracy of Iranian EFL learners. In another study, Mahmoudi and Yazdi (2011) observed seven preuniversity English classrooms in Ahvaz. This study revealed that the preuniversity students of different proficiency levels were supportive of L2 domination in their English classes and were critical of an excessive use of L1.

It appears that learners very often use translation as a learning strategy to comprehend, remember, and produce a foreign language. Relatively little research attention so far seems to have been devoted to consideration of the use of translation in learning and remembering grammatical structures. However, the effect of translation on improving language accuracy in language institutes has gone under investigation by Vaezi and Mirzaei (2010), to the best of my knowledge. However, the effect of translation on learning grammatical structures in junior high schools has not still been investigated. Probably doing some research would help us identify at least some parts of the
problems in understanding grammatical structures and may lead us to better methods of teaching grammar.

Learning English has always been a great challenge for Iranian EFL learners. English is a compulsory course starting from junior high schools and existing in all branches of high schools and universities. Regarding the fact that the systematic starting point for learning a foreign language in our country is from junior high schools, paying more attention to this critical educational period is of a great value. If the syllabus designers and the instructors at this level of educational system can identify the learners' problems in learning a foreign language and try to find ways for facilitating the process of learning, it will have great effects on the whole process of foreign language acquisition in Iran.

Most of the students in English classes have difficulty in learning and remembering grammatical structures mostly those structures in contrast with their mother tongue structures. We cannot and should not ignore the role of L1 as a learning strategy used by EFL learners directly or indirectly as Ellis (2008) states that "The effects of the L1 are very evident in L2 acquisition" (p. 470). Learning grammatical structures in the elementary levels of FL learning is significant and also sensitive. It is significant because the first structures and not necessarily the easiest ones should be learned at this level and teaching these structures in a more comprehensible and retrievable manner can pave the way for learning and understanding the more advanced grammatical structures. Ellis (1996) suggested that grammar teaching can enhance learners' proficiency and accuracy and assist learners to acquire the syntactic system of the language. Teaching grammar is sensitive because paying too much attention to grammar may de-motivate the learners and create a boring atmosphere in the classroom.

The need for some translation in language learning is usually supported by nonnative teachers, so in an FL teaching and learning situation like Iran which almost all the FL teachers are nonnative, judicious use of L1 can be a great asset for making the materials easier to understand. Atkinson (1993) believes that raising students' consciousness of the non-parallel nature of language allows learners to think comparatively.

3. Method

3.1 Participants

The participants in this study were 62 male junior high school students in grade three in Isfahan, Iran. They were selected based on the results of an experimental made pre-test. This test selected the students who were not familiar with the intended grammatical structures. The participants were divided into two groups: a control group and an experimental group including 31 students each. They attended English classes for two sessions a week, each session lasting 1.5 hours. The study lasted for eight weeks.

3.2 Materials

A pretest and a post-test were designed. The pretest included five items for testing structures relating to adjectives, five items for possessives and ten items for word order. The twenty remaining items covered materials unrelated to the three structures but related to the previous students' English knowledge.

After reviewing and rewriting the items, the pretest was piloted with 30 similar students to determine item characteristics, i.e., item facility and item discrimination. In addition, the reliability of the pretest was calculated through KR-21 method which turned out to be 0.78. After applying necessary changes to the questions, the final version of the test was ready to be administered.
It is worth mentioning that the post-test included twenty items testing just the intended structures similar to the pretest but excluded the other twenty unrelated items. This post-test was also piloted with 30 similar students to determine item characteristics, i.e. item facility and item discrimination. The reliability of the test was 0.76. This test was also given to both groups and the outcome scores were analyzed through independent-samples t test in SPSS program.

3.3. Procedure
Three grammatical structures (adjectives, word order, and possessives) were determined. The rationale behind choosing these structures was their existence in the English textbook of grade three and also the difficulty in learning of these structures due to language interference. This study required 62 homogeneous learners who also had almost no familiarity with these three grammatical structures. The next step was to construct a test to identify the participants who did not have familiarity with the intended structures. Therefore, a researcher made pretest of forty items was designed. The test included five items for testing structures relating to adjectives, five items for possessives and ten items for word order. The twenty remaining items covered materials unrelated to the three structures but related to the previous students' English knowledge.

After reviewing and rewriting the items, the test was piloted with 30 similar students to determine item characteristics, i.e., item facility and item discrimination. In addition, the reliability of the test was calculated through KR-21 method which turned out to be 0.78. After applying necessary changes to the questions, the final version of the test was ready to be administered. The test was given to 126 students in grade three of junior high school. It is worth mentioning that the participants who incorrectly answered at least 60% of the items designed for each structure were selected for the final phase of the study. This procedure made it possible for the researcher to make sure that in the beginning of the treatment, the participants had almost no familiarity with the intended structures in the study. One hundred and ten students who met the necessary condition (i.e., lack of familiarity with the intended structures) were identified. Sixty-two participants, out of 110, with scores one standard deviation below and above the mean on the distribution curve of the pretest were chosen and divided into two homogeneous groups on the basis of their pre-test scores. Regarding each intended grammatical structure of the study, 15 Persian sentences and phrases were distributed among the participants to be translated into English within 5 sessions; that is, 3 sentences each session. Therefore, the whole project took 15 sessions of instruction and translating 45 sentences and phrases on the whole.

In other words, over eight weeks, the experimental group received grammar exercises in translating some phrases or sentences from Persian into English. For example, the translation of 'زیبا باغهای' was asked to be done by the students for checking their understanding of adjective structure in English. It is worth noting that translation of such phrases into English is problematic for Persian speakers because contrary to English grammar their L1 grammatical rules dictate using adjectives after nouns. The correction of the probable errors in the students' translation was done and the students' attention to the problematic points due to language interference was drawn. For control group everything was similar to that of experimental group, except that there were no Persian sentences to be translated into English. The two groups were given an achievement test as a post-test in order to make sure that the difference in the scores of the intended structures was due to the function of the treatment. It is worth mentioning that the post-test included twenty items testing just the intended
structures similar to the pre-test but excluded the other twenty unrelated items. This post-test was also piloted with 30 similar students to determine item characteristics, i.e., item facility and item discrimination. The reliability of the test appeared to be 0.76 this time.

4. Results
A population of 62 participants with scores one standard deviation above and below the mean score of the pretest was selected. The following table shows the descriptive information of the pretest needed for deciding whether the two groups were homogeneous.

Table 1. Pre-test Information

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>31</td>
<td>9.29</td>
<td>2.61</td>
</tr>
<tr>
<td>Experimental group</td>
<td>31</td>
<td>9.58</td>
<td>2.12</td>
</tr>
</tbody>
</table>

An independent $t$-test was conducted between the scores of the participants in both groups to determine if the difference between the means of the scores of the two groups were significant on the pre-test. The observed $t$-value of the $df = 60$ was 0.85, which is a smaller than the critical $t$-value that equals 2.00 at the same degree of freedom ($df = 60$). Therefore, it can be concluded that the difference between the means of the pretest scores in the two groups was not significant, i.e. the two groups performed fairly similar to each other in the pretest. The result of the independent $t$-test for the pre-test scores has been shown in Table 2.

Table 2. Independent Sample $t$-test for Pretest Scores

<table>
<thead>
<tr>
<th>Control &amp; Experimental</th>
<th>$t$</th>
<th>$df$</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.11</td>
<td>60</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Both groups took the post-test which was similar in content and format to the pretest to find out the effectiveness of using translation from L1 to L2 on the improvement of the language accuracy of the experimental group and compare their improvement with their counterparts in the control group. The descriptive analysis of the post-test has been presented in Table 3.

Table 3. Post-test Information

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>31</td>
<td>13.12</td>
<td>4.30</td>
</tr>
<tr>
<td>Experimental group</td>
<td>31</td>
<td>15.29</td>
<td>3.91</td>
</tr>
</tbody>
</table>

After administering the post-test to both of the groups, an independent $t$-test between the scores of the participants in the experimental and the control group was conducted to determine the significance of the mean difference between the scores of the two groups. As shown in the following Table, the calculated $t$-value for the post-test was $2.16$ ($df = 60$), which is greater than 2, i.e. the critical $t$-value at the same degree of freedom ($2.16 > 2; df = 60$).

Table 4. Independent Sample $t$-test for Post-test Scores

<table>
<thead>
<tr>
<th>Control &amp; Experimental</th>
<th>$t$</th>
<th>$df$</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.16</td>
<td>60</td>
<td>0.05</td>
</tr>
</tbody>
</table>

From the recent $t$-test table it is quite obvious that the effect of using translation from L1 to L2 on the improvement of the language accuracy has been significant since the $t$-observed value is greater than the set value of $t$-critical. Therefore, as the result of the above-mentioned analyses reveals, the null hypothesis formulated in this study can be rejected. In other words, it is concluded that using translation from L1...
to L2 improves the language accuracy of Iranian junior high school students.

The findings obtained in this research suggest that the experimental group which received treatment in the form of translation from L1 to L2 using specific structures outperformed the control group, which received the placebo.

5. Discussion
It has been a controversial issue for a long time whether English language classrooms should include or exclude students’ native language (Brown, 2000). Use of L1 was strong during grammar-translation dominance, then the Direct Method at the end of the nineteenth century banned the use of mother tongue; however, L1 use became more accepted once again with the Silent Way, Desuggestopedia, and Community Language Learning until it was rejected by Communicative approaches. Positive role of the mother tongue has recurrently been acknowledged as a rich resource which can assist second language teaching and learning (Cook, 2001).

L1 is a rich source of linguistic knowledge with which any L2/FL learner is already equipped, and it does not seem reasonable to deprive language learners from using L1 at the expense of exercising an English-only method. It is also recommended that materials developers include exercises and activities in their materials which require the learners to translate problematic phrases and sentences using accurate grammatical structures.

The results of this study support Atkinson’s (1987) statement who introduces translation from L1 to L2 as a means of improving the accuracy of the newly learned structures:

An exercise involving translation into the target language of a paragraph or set of sentences which highlight the recently taught language item can provide useful reinforcement of structural, conceptual and sociolinguistic differences between the native and target languages. This activity is not, of course, communicative, but its aim is to improve accuracy (p. 244).

The results of this research are also in accordance with the research findings of Vaezi and Mirzaei (2010) who investigated the effect of using translation from L1 to L2 on the improvement of linguistic accuracy of Iranian EFL learners in language institutes.

6. Conclusion
It is hoped that the results of this study would probably help Iranian EFL teachers get new insights towards the use of L1 and lead them to a kind of judicious use of L1 in FL classrooms. Also the results of such studies would be great for the EFL teachers to apply translation techniques to reduce the students' confusion and misunderstanding. The learners should learn the structural differences existing between languages which may cause negative interference from their L1. In other words, learners should be warned that there is not always a structural correspondence between their first language and the language they are learning.

The findings of this study are limited to a small group of students and also restricted to just one junior high school (Salmaan Farsi Junior High School) located in Isfahan, Iran. Studying on larger groups and areas would surely create more reliable results. So the results of this study cannot and should not be generalized to all language learners at different levels of learning and in various educational contexts.

For those who are interested in studying the effects of using L1 in L2/FL learning it is recommended to consider other facets of L1 use in the areas of syntax, semantics, and even pronunciation and spelling.

References


