Exploring the effectiveness of using L1 in teaching grammar to English as a foreign language learner

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Abstract: There have been many controversies in the history of language education regarding the effectiveness of using students' mother tongue in the classroom. Some researchers believe that it can cause interference and procrastinate the process of language learning while others believe that it can have educational benefits. The purpose of this study was to examine the effectiveness of using translation in teaching grammar to English as a Foreign Language (EFL) students. 30 EFL students were selected and randomly assigned to two groups, namely control and experimental. To examine the effectiveness of using translation in teaching grammar, the two groups were taught for 18 sessions using two different methods. In the experimental group, students' L1 was 'judiciously' used while teaching the grammatical rules, while in the control group, English language was used as the only language of instruction. After 18 sessions of instruction, the performance of the two groups in the pre-test and posttest were compared using T-test and Mann-Whitney U test. The findings indicated that the experimental group outperformed the control one, which confirmed the positive effect of using translation in teaching grammar to EFL learners. The results were discussed and the pedagogical implications were presented.

Keywords: Translation in language teaching, teaching grammar, EFL learners

INTRODUCTION

According to Cook (2010), the use of students' mother tongue in language teaching has had many arguments in the history of language teaching. As he puts it, this long history can be divided into three main eras. The first era was during Grammar Translation Method (GTM) in which the use of translation was very dominant in language classes since it was considered both as the means and end of language learning. However, the dominance of translation in language classes was questioned and rejected by the advent of the Direct Method and Naturalistic approaches in language education, arguing that the process of learning a second language is similar to acquiring the first language in that in both of them no translation is needed (Cook, 2010). Furthermore, it was argued that the use of translation can cause interference and procrastinate the process of language learning. However, according to Cook (2010), although theoretically the use of translation has been prohibited in many language classes, many teachers have used it in their real teaching practices. This fact along with the arguments against the linguistic and psychological assumptions underlying Direct Method, convinced many scholars in the field that the rejection of the use of translation in language teaching has been heavily based on the economic and political reasons than the educational and academic ones (Cook, 2010).

Therefore, it was agued by a number of scholars in language education and translation studies that a 'judicious' use of translation in language classes can facilitate and deepen students' learning and help them to focus more on the input they receive (Cook, 2001; Malmkjær, 2004; Cook, 2007; Cook, 2010; Malmkjær & Gutiérrez, 2013; Pym, 2016; Pym, 2018). This facilitative role can be more important in teaching some grammatical rules that students find them very difficult to learn by implicit instruction. In spite of the new understanding regarding the facilitative role of 'judicious' use of translation in language classes, empirical studies examining the facilitative or debilitative effects of the use of translation in teaching EFL grammar are lacking in Iranian context. Therefore, this study aimed to investigate the potential positive or negative effects of using students' L1 on their learning of English grammar.

REVIEW OF LITERATURE

In spite of the theoretical and argumentative supports for the use of translation in language classes form the scholars in translation studies (Pym, 2016) and language teaching (Cook, 2010), the findings of the experimental studies conducted in this regard have had contradicting results, with some confirming the facilitative role of translation in language teaching while some others do not show such a positive effect (Bawcom, 2002; Miles, 2004; Vaezi & Mirzaei, 2007; Källkvist, 2008; Cianflone, 2009; Chang, 2011; Lee, 2013; Spahiu, 2013; Fernandez-Guerra, 2014; Ostovar-Namaghi & Norouzi, 2015; Arenas-Iglesias, 2016; Navidinia & Toushe, 2017; Navidinia, Nazarloo, Esmaeili, 2018).

For example, in the context of Taiwan, Chang (2011) examined the effectiveness of teaching English grammar through Grammar Translation as compared to Communicative Approach. After four months of instruction, the findings showed that the experimental group (where translation was used in teaching grammar) achieved higher scores than those of the control group (where translation was excluded). The author concluded that the Communicative Approach can help learners develop their fluency and the Grammar Translation can enhance students' accuracy; therefore, an integration of both approaches is more effective in language classes.

In another study in South Korean context, Lee, Schallert and Kim (2015) investigated the effects of two types of reading instructions, namely extensive reading and translation, on 124 students' knowledge of grammar and attitude. In the extensive reading type of instruction, translation activities were excluded,

while in the translation type, translation activities were done by providing explanations or giving equivalences in learners' L1. The experiment lasted for two semesters. The results indicated that extensive reading had a negative effect on the attitude of students with lower proficiency. However, translation activities were found to have positive effects on the attitudes of students with different levels of language proficiency. Koletnik Korosec (2013) also tried to examine the role of translation exercises and instructions given in L1 to help learners acquire the foreign language linguistic and grammatical competence. The students who were Slovene native speakers were divided into two groups of almost equal size (Group A included 11 students and Group B nine students). In Group A, students received explicit grammatical instruction using L1 to provide additional information and explanations, while in Group B, the same content was taught without any uses of translation and/or the mother tongue of the learners. The results indicated that using translation activities for teaching grammar is of educational value especially for the language learners of advanced levels.

In some other experiments, however, the use of translation did not have any significant effect on students' learning of grammar. In their study with 39 French learners, Cohen and Brooks-Carson (2001), investigated the effects of applying an alternative approach to writing short essays on language assessment tasks. The learners were given two main tasks to do: their first task was to write an essay directly in French, and their second task was to write another essay, but this time they were asked to write the essay draft in their L1 and then translate it into French. The results showed that the grammar ratings were not significantly different between the two types of writings. However, retrospective verbal data collected from the participants showed that they were thinking in English which was their mother tongue to write in French.

In another study, Arenas-Iglesias (2016) examined 38 students' and two teachers' perceptions regarding the use of students' mother tongue in the class. The findings indicated that in certain situations, both teachers and learners preferred to use students' L1. The author concluded that using students' L1 did not impede the learning process. Similarly, in another study in Birmingham University with Japanese EFL students, Miles (2004) maintained that using students' mother tongue can actually help the learning process, because students outperformed in the exercises that they were allowed to use their L1.

Besides, Fernandez-Guerra (2014), examined the perceptions of 93 students of computer sciences and 62 English students about using translation in language teaching. The results indicated that the participants had positive attitudes towards the use of translation as it can help students to learn the linguistic and cultural issues, increase their motivation, and improve their comprehension.

However, despite these studies, the review of literature for this study indicates that experimental studies investigating the effect of using EFL students' L1 on their learning of English grammar are lacking in the Iranian context. Therefore, this study aims at examining the effect of using translation on EFL students' learning of English grammar.

METHODOLOGY

Participants

The participants of this study included 30 EFL learners who took English classes in a foreign language institute in Birjand City, Iran. They were selected among 40 students who were enrolled as pre-intermediate students in the institute. However, after running Oxford Placement Test, 10 students whose mean scores were more than one Standard Deviation below or above the mean were not included in the

study to have a more homogeneous sample. The participants' age ranged from 11 to 16 with the mean of 14.

Procedure

The participants of this study were randomly divided into two equal groups, namely, experimental and control. As the purpose of this study was to examine the effect of using L1 on EFL students' grammar learning, the two groups were taught the grammatical rules differently. In the experimental group, students' L1 was used while teaching the grammatical rules and answering students' questions, while in the control group, only English language was used as the mean of instruction, and the class was run just monolingually.

Data collection and analyses

Before starting the experiment, the participants were asked to answer a grammar test consisting of 50 items. The items of the test were carefully constructed and the content validity was approved by asking 4 university professors to check the test items. The reliability of the test was .78 which is considered as relatively high and acceptable. After 18 sessions of instruction at the end of the term, the same grammar test was run as the posttest to examine which group could perform better. The results of the pretest and posttest were analyzed and compared using T-test and Mann-Whitney U test. For data analysis, SPSS version 22 was used.

RESULTS

Descriptive Statistics

Table 1 shows the scores achieved by the participants in the pretest and posttest. As indicated in the Table, the mean of students' scores in the pretest for the control and experimental groups were 19 and 21, and in the post-test they were 30 and 47.

Table 1. Scores achieved on the pre-test/post-test for grammar test

Group	test type	test level	N	Minimum	Maximum	Mean	Std. Deviation
Control	Grammar	Pre-test	15	12	30	19.60	6.300
		Post-test	15	20	42	30.00	7.358
Experimental	Grammar	Pre-test	15	10	35	21.53	8.079
		Post-test	15	40	50	47.27	3.535

Total	Grammar	Pre-test	30	10	35	20.57	7.186
		Post-test	30	20	50	38.63	10.453

Inferential Statistics

In order to choose the best parametric test to analyze the data, the basic assumptions underlying these tests should be first examined, one of them is the Test of Normality. In order to examine the Normality of the data, Kolmogorov-Smirnov test was conducted as indicated in Table 2.

Table 2: One-Sample Kolmogorov-Smirnov Test

		Group	N	Normal Parameters		Test Statistic	Asymp. Sig.
				Mean	Std. Deviation		
Grammar	Pre-test	Control	15	19.60	6.300	0.234	0.026
		Experimental	15	21.53	8.079	0.175	0.200
	Post-test	Control	15	30.00	7.358	0.233	0.027
		Experimental	15	47.27	3.535	0.249	0.13

As indicated in Table 2, the hypothesis of the scores' normality in the control group is rejected (Sig<0.05). Therefore, nonparametric test should be used in order to analyze the data.

As the aim of this study was to examine the effect of using L1 on EFL students' learning of grammar, we needed to know the differences between the scores of the control and experimental groups in the pre-test and post-test. Therefore, the best test to be used is ANCOVA. However, for running ANCOVA, some assumptions must be checked.

One of the assumptions used in ANCOVA is the homogeneity of Variance in the dependent variables (pre-test/post-test scores) in the two groups. The result of Levene's Test of Equality of Error Variances is shown in Table 3.

Table 3: Levene's Test of Equality of Error Variances

	Dependent Variable: Post-test			
Grammar	F	df1	df2	Sig.
	2.865	1	28	0.102

As shown in Table 3, the assumption of equality of variances for the scores in grammar test is true (F=0.78, Sig> 0.05).

Another assumption which has to be checked is the equality of regression slope of the covariate in the groups (experimental and control groups). However, as indicated in Table 4, this assumption was not met because the difference of F value between covariate and group variable in the Grammar test is significant (Sig<0.05).

Table 4: Tests of Between-Subjects Effects

Dependent Variable: Post-abs						
	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Grammar	Group * Pre-test	239.421	1	239.421	9.063	0.006

Therefore, ANCOVA cannot be run for data analysis. Another method by which it is possible to omit the effect of pre-test scores (learners' previous knowledge) on post-test is comparing the scores' difference in pre- and post-test for both experimental and control groups. If the scores in the post-tests show a significant difference between the experimental and control groups, then it can be proved that the teaching method applied in the experimental group worked better than that of the control group.

As indicated in Table 5, there was not any significant difference in the scores obtained in the pretest by the experimental and control groups (Sig>0.05). As the participants were homogeneous and were randomly assigned into two groups, such a result was predictable.

Table 5: Independent Samples Test for pre-test scores

	T-test for Equality of Means			
	T	Df	Sig.	Mean Difference
Grammar pretest	-0.731	28	0.471	-1.933

The same t-test should be run to examine the difference in the two groups' scores in the posttest. However, according to the results of the Kolmogorov-Smirnov test shown in Table 6, the assumption of normality of data was not met (Sig<0.05). Therefore, the nonparametric equivalent of T-test (i.e. Mann-Whitney U Test) was used.

Table 6: One-Sample Kolmogorov-Smirnov Test

	N	Normal Parameters		Test	Asymp.
Grammar posttest		Mean	Std. Deviation	Statistic	Sig.

	30	18.07	11.697	0.165	0.037

As Table 7 shows, there is a significant difference between the two groups in the posttest (Sig<0.05). This means that the students in the experimental group in which students' L1 was used for teaching grammar significantly outperformed those in the control group.

Table 7: Mann-Whitney U Test for scores' differences in Grammar post-test

	diff_Gram
Mann-Whitney U	29.000
Z	-3.472
Sig. (2-tailed)	0.001

DISCUSSION AND CONCLUSION

This study investigated the effectiveness of using translation in teaching EFL grammar. The results indicated that the experimental group in which the students' L1 was used had a significantly better performance in the posttest compared with that of the students in the control group (Sig >.05). The findings supported the previous theoretical and empirical studies supporting the integration of students' L1 in L2 classes (Titford, 1983; Edge, 1986; Atkinson, 1987; Cook, 2001; Malmkjær, 2004; Cook, 2007; Cook, 2010; Lee, 2013; Pym, Malmkjær & Gutiérrez, 2013; Pym, 2016).

More specifically, the findings of this study are in line with the results of the previous studies conducted by Chang (2011), Koletnik Korosec (2013) and Lee, Schallert and Kim (2015). All of these researchers indicated the positive effects of using students' L1 in learning grammar. One reason that can justify the obtained result is that the use of students' mother tongue in the class can boost students' 'focus on form' (Cook, 2010) or 'noticing' that can significantly improve their learning (Navidinia, Mobaraki, & Malekzadeh, 2019). It has been argued that although some aspects of the foreign language can be learned implicitly, for learning some grammatical points, noticing and focus on input is needed (Williams, 1999). Referring to students' mother tongue can cause noticing and deepen their learning as they can connect what they have learned with the grammatical rules of their native language. This can result in positive transfer too. Furthermore, by the use of the students' mother tongue the teacher has more scope for maneuvering in order to make students aware of the similarities and differences between the grammatical structures of the two languages and inform them of the complicated points.

Another reason that can support the findings of this study is the results of some studies showing that the use of L1 can decrease the level of students' stress in the classroom (Cianflone, 2009; Spahiu, 2013; Fernandez-Guerra, 2014). Having lower level of stress can positively affect students' learning, as it has been repeatedly shown that stress can negatively influence students' learning (Azizifar, Faryadian, & Gowhary, 2014; Harwood, 2010). Furthermore, as in the control group, all students had to use English

language in order to ask their questions, it might be the case that sometimes students had questions but as they did not know how to ask them in English, they preferred not to do that.

Therefore, the findings of this study further confirmed what cook (2010) said regarding the political and economic motivations behind promoting monolingualism in language education. Furthermore, the results questioned the naturalistic views of language learning especially when it comes to learning EFL grammar. This is in line with the ideas of many researchers believing that there are many differences between learning L1 and L2. One of the main differences is the amount of noticing and focus on input that is needed while learning L2.

The findings of this study have some implications for language teaching profession. Firstly, EFL teachers should be aware of the benefits of using L1 in their classes. Special attention should be paid to empowering teachers to use students' L1 more effectively in inservice and preservice teacher education programs. Furthermore, the dominance of monolingual approach as the best way of language teaching should be questioned and more rooms should be given to "judicious" use of L1 in classrooms. Finally, materials designers should consider students' L1 while designing textbooks and other educational materials.

This study tried to shed some light on the effect of using L1 in teaching grammar to EFL students. However, the number of participants were just 30 students. Therefore, considering the importance and complexity of learning EFL grammar, and the paucity of empirical studies in this regard in the EFL context, it is hoped that other researchers continue this line of research with more participants, and across different language proficiency levels in order to explore the potential effects of using translation in teaching grammar and other language skills and components.

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