

The Effect of Technology-Assisted Language Instruction through Prezi and Telegram on the Iranian Pre-intermediate Learner's Grammar Learning

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Abstract

This study was conducted to investigate the effect of technology-assisted language instruction through Prezi and Telegram on the Iranian pre-intermediate learner's grammar learning. To this end, an experimental approach was applied to assess the efficacy of Prezi/Telegram -based teaching on students' grammar learning. A Nelsen proficiency test, two PET grammar tests, as a pre and post-test were applied to explore the effects of technology-assisted language instruction through Prezi and Telegram on students' grammar learning process. Then the difference in mean scores was compared to answer the research questions. The study has revealed that: (1) the use of Prezi and Telegram as a teaching tool had a positive effect on students' grammar learning; (2) the experimental group obtained somewhat higher scores in the post-test than in PET grammar tests; (3) the difference between the grammar tests and post-test for control group was not statistically significant; and (4) the experimental students were more differentiated than the control students, as shown by a statistically significant difference between the mean scores of both groups in post-test in favor of the experimental students. The product of this study can help curriculum designers; language instructors and practitioners.

Keywords: “grammar learning”, “Prezi”, “Telegram”, “technology-assisted language instruction”.

Introduction

Nowadays, the widespread use of technology has revolutionized everybody's life. The use of technology is on the rise and it is here to stay. As a result, day by day we witness more and more of technology use in all aspects of our lives, and English Language Teaching (ELT) is not an exception. Considering various sorts of instruction used in the history of teaching and learning, many fluctuations can easily be noticed. Some instructors are still in doubt about the usefulness of their instructional methods. In the era of Information Technology (IT), it is not surprising to see instructors who are taking advantage of new technologies like the Internet, ICT tools, etc. to enhance both the quality of their own instruction and their students' active role in learning. On the basis of these new teaching methods, the role of teachers has changed from an authoritative into a facilitative one, and that of students from a passive user of materials into an active processor of them. In addition, through using technology, greater individualization, social interaction, and reflection on language might be possible.

According to Young (2012), the major disadvantage of traditional face-to-face instruction is that it is bound to a certain time and space. This limitation might lead to students' losing the chance of interacting with both teachers and peers as soon as they leave the class which cannot be ignored at the age of communication technologies. To overcome this shortcoming of traditional face-to-face instruction, 'e-learning' came into vogue. This method of instruction gave learners the chance of learning at any time or any place. On the contrary, there existed a lot of teachers and educators who were strongly in favor of the role a teacher can play in a language class.

As a result, 'blended learning' came into existence which is an amalgamation of the best attributes of both traditional face-to-face instruction and online learning. 'Technology-assisted instruction' can be considered as an instance of 'blended learning'. Being broad in scope, technology-assisted instruction does not have a very accurate definition that all scholars agree on. But generally, it can be defined as any form of instruction where technologies are used and applied to facilitate, assist, and enhance the quality of teaching and learning. According to JISC (2009), technology-assisted instruction can be conceived as a continuum, beginning with the traditional classroom-based/face-to-face instruction, supported by technology, moving to a more flexible, blended approach which greatly utilizes technology and makes less use of face-to-face contact, and ending in an entirely online approach which thoroughly relies on technology. Due to the fact that 'Technology-assisted instruction' is an almost recent concept, little is known about the perceptions of teachers and especially learners regarding its effectiveness in language learning compared with the traditional face-to-face instruction.

Another issue which will be addressed in this study is related to ICT tools which are highly accessible and popular nowadays. Blurton (1999) regards ICTs as different pieces of technological devices and resources which are employed to communicate, produce, broadcast, and cope with information. ICTs have played vital roles in facilitating teaching and learning. They have altered classroom communication methods and modified instruction strategies. Since ICTs are intuitively robust and interactive, they have the capacity of satisfying each student's demands by providing situations to direct his/her learning; to search for information and accomplish activities in such a way that his/her needs and interests are totally met (Chen & Chung, 2012). As such, this study seeks to first expose learners to different ICT tools like Prezi and Telegram, Podcasts, YouTube, Skype, and Instagram and then find out what their perceptions are of the use of such tools to enhance their language abilities.

Statement of the Problem

No doubt, the ultimate goal of technology-assisted language instruction is to support, assist, and facilitate the learning process. Hammond (2001) describes how technology-assisted language instruction works by stating that "knowing when and how to intervene is what technology-assisted language instruction is all about. EFL secondary students often face difficulties in learning English, especially in learning grammar and it is considered to be challenging for them. According to Al-Ghafly (2011) most learners face some difficulties in learning grammar. They tend to forget newly learned words quickly and they have difficulty using them in either speaking or writing because of a lack of knowledge of pragmatics. Alhaysony (2012, p.525) claimed that students rely mainly on teachers or someone else to learn basic information about grammar rather than trying any other strategies themselves. Khiyabani, Ghonsooly and Ghabanchi (2014) stated that for most students who

learn a second language, the first difficulty they meet is usually remembering tenses. Using multimedia to attract students' attention is thought to be highly effective. Presentation tools are important for both students and teachers. Mustafa, Najid and Sawari (2013) pointed out that teaching and learning using Prezi provides a new technique that attracts students' attention in the learning process. They claimed that the method of using Prezi presentations develops a more creative and innovative learning environment. Although there may be reluctance to the increased use of technology in the classroom, Prezi is a highly useful tool. Therefore, this prospective study was going to investigate the effect of technology-assisted language instruction through Prezi and Telegram on the Iranian pre-intermediate learner's grammar learning.

Research Hypothesis

H01: Using Prezi Presentation Software has no significant effect on grammar learning of Iranian EFL Learners.

H02: Using telegram has no significant effect on grammar learning of Iranian EFL Learners.

Method

The population selected for this experimental study was EFL learners of language institute. Two of the upper intermediate classes were selected to be experimental group and control group. Both groups consisted of a total of 60 students: 30 experimental group and 30 control group. Both male and female students participated in the study. They were all aged between 13 and 16. A proficiency test was administered to both groups at the same time to ensure the homogeneity of the participants. Experimental group received the words on their mobile phones via social networks (Telegram) while the control group was given the same word group on paper. The teacher for both groups was the same. And also the experimental group who taught grammar learning by using Prezi presentations and a control group who taught the same content without using Prezi presentations.

The data used in the present study was the message sent using social networks to the experimental group participants. The messages included the sentence items which were selected from the textbook *Passages1*. Around 140 sentences were chosen based on the objectives of the study and were classified. Twice a week, the messages containing 15 sentence items were sent to the participants by the researcher. At the end of the experiment almost 100 sentences were sent to the experimental group students.

In order to answer the research questions and compare and assess the participants' grammar learning, two time-series progress tests of grammar were developed and administered. The sentences used in the study were selected from the textbook *Passages1* which is an advanced level book. Three tests based on the taught grammar were designed by the researcher to see the students' performance during the experiment and investigate the role of social networks in grammar teaching and learning process.

Furthermore, in order to make sure of the reliability of tests, it was calculated through KR-21 method. Then, the treatment began based on the results gained from pilot study which proved that the pilot group students were unfamiliar with selected sentence items. The experimental group received sentences on their mobile phones via social networks (Telegram), whereas the control group was given the same group of sentences on papers. Data was collected from each of the two groups during their normal class times. First, participants met with the researcher. They were given a brief introduction to the project, its objectives and its method. The point which should be indicated is that the control group received no treatment which was receiving sentential items on the phone and should study the sentences on receiving papers. Whereas, the participants in the experimental group were required to study the sentences they received via social networks containing the grammatical sentences. The advantage of this group was ease of access to the sentences wherever they wanted. They could read the grammatical sentences on their free times on their way to school or home. Two PET grammar tests were administered with an interval of two weeks to see the students' performance. The reliability of each test was calculated through KR-21. Then a post-test was designed and administered to compare the performance of both groups during the treatment. The same as other tests, the post-test contained four types; multiple choice items, fill in the blanks, matching words and cloze test. All items had four choices; one as correct answer and the other three as distracters. The scoring was the same as other tests and the reliability of the test was administered using KR-21. To answer the research questions, all test results were assessed and analyzed using SPSS (V. 25).

Results Discussion

Regarding the research questions which were concerned with the effect of technology-assisted language instruction through Prezi and Telegram on the Iranian pre-intermediate learner's grammar learning, the descriptive statistics are presented in “Table 1”.

Table 1- Descriptive Statistics for Pre-test Scores of the Experimental and Control Groups

Group	<i>N</i>	Mean	<i>SD</i>	Std. Error Mean
<i>Experimental</i>	30	25.64	.323	.059
<i>Control</i>	30	26.94	.295	.053

Table 2- Descriptive Statistics for Post-test Scores of the Experimental and Control Groups

Group	<i>N</i>	Mean	<i>SD</i>	Std. Error Mean
<i>Experimental</i>	30	26.05	4.95	1.10
<i>Control</i>	30	27.66	6.59	1.55

As it has been shown by descriptive statistics, the students in the two groups had approximately the same level of grammar learning at the beginning of the study (pretest). The experimental group scored better than the control group in posttest. The mean score of experimental group in posttest was 27.66 while the mean score of control group equaled 26.05. However this difference needed to be checked for statistical significance. An independent samples t-test was used to show if this difference is statistically significant or not. The t-test results are indicated in “Table 3”.

Table 3-Independent Samples T-test for Significance of Posttest Scoring Difference

T-test for Means						
Levene's Test for Variances						
Factor	<i>F</i>	Sig.	<i>T</i>	<i>Df</i>	Sig. tailed	(2- Mean Diff.
Equal variances assumed	5.489	.939	-.859	36	.0396	1.183
Equal variances not assumed			-.859	35.862	.0396	1.183

As the t-test results indicate, the difference of achieved scores on the posttest has not been by chance. In other word, since sig. (2-tailed) at $p < 0.05$ is less than 0.05 (equaled 0.39); the score difference between the two

groups has not been by chance. Regarding the research questions, this was concerned with the effects of Prezi and Telegram on the Iranian pre-intermediate learner's grammar learning, the learners' mean score in control group raised from 25.4 in pretest to 26 in the post test. Descriptive statistics of pre- and post-test results of control group are given in “Table 4”.

Table 4-Descriptive Statistics of Pre- and Post-test Results of Control Group

<i>Control</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Std. Error Mean</i>
Pretest	30	25.45	2.13	.47
Posttest	30	26.05	4.95	1.10

As the mean scores indicate, the control group participants have gained higher scores after receiving the treatment. However, it needed to be checked for statistical significance to see if the raise of scores has been accidentally or as a result of treatment. To check the significance of the difference between pretest and posttest, a paired samples t-test was conducted. The t-test results are indicated in “Table 5”.

Table 5-Paired Samples T-Test for Control Group before and after Treatment

<i>ControlMean</i>		<i>Std. Deviation T</i>		<i>Df</i>	<i>Sig. (2-tailed)</i>
Pre-Post	-.60	4.01	-.668	19	.512

As the t-test results indicate, the change of scores after treatment has been by chance. In other word, since sig. (2-tailed) at $p < 0.05$ is higher than 0.05 (equaled 0.51), the score difference between the two groups has been by chance. The learners mean score in experimental group raised from 26.7 in the pretest to 27.6 in the post test. Descriptive statistics of pre- and post-test results of the experimental group are given in “Table 6”.

Table 6-Descriptive Statistics of Pre- and Post-Test Results of Experimental Group

<i>Experimental</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Std. Error Mean</i>
Pretest	18	26.72	7.33	1.72
Posttest	18	27.66	6.59	1.55

As the mean scores indicate, the experimental group participants have gained higher scores after receiving the treatment. However, it needed to be checked for statistical significance to see if the raise of scores has been accidentally or as a result of treatment. To check the significance of the difference between pretest and posttest, a paired samples t-test was conducted. The t-test results are indicated in “Table 7”.

Table 7-Paired Samples T-test for Experimental Group before and after Treatment

<i>Experimental Mean</i>	<i>Std. Deviation</i>	<i>T</i>	<i>Df</i>	<i>Sig. (2-tailed)</i>
Pre-Post	-.94444	1.76476	-2.271	.036

As the t-test results indicate, the change of scores after treatment has been due to treatment. In other word, since sig. (2-tailed) at $p < 0.05$ is less than 0.05 (equaled 0.51), the score difference between the two groups has been due to treatment. This study was an investigation to check which degree of proficiency distance between the possible interlocutors in educational settings resulted in better improvement in EFL learners in some aspects of grammar. The obtained results indicated that there was significant difference between control group participants and experimental group participants. When comparison of scores of before and after treatment was done on control group, the results revealed that they did not progress significantly. However, when comparison of scores of before and after treatment was done on experimental group, the results revealed that they progressed significantly. The other finding of the study was that experimental group is a more fruitful strategy than control in improving the participant's grammar achievement. According to the results demonstrated through examination of the data in the preceding sections, it was found that the participants in the experimental group achieved more. This may imply that technology-assisted language instruction is vital to improving EFL learners' grammar knowledge. The findings of the present study were in line with the findings of Perron and Stearns (2010), who suggested that regarding the technology-assisted language instruction potentials in the realm of teaching and learning grammar, we should go beyond it and apply these technologies (Prezi and Telegram) in teaching and learning other skills and sub-skills too. The findings also echo the findings of the study conducted by Kim and Gilman (2008), who concluded from their study that, technology-assisted language instruction have many advantages in the field of learning. It can help learners to improve their literacy and numeric skills and also helps them to recognize their existing abilities. It encourages both independent and collaborative learning experiences. Helps students to recognize their difficulty areas for which they need help and support.

Conclusions

This study aimed at investigating the effect of technology-assisted language instruction through Prezi and Telegram on the Iranian pre-intermediate learner's grammar learning. As discussed in detail, different factors affect Iranian EFL learners' grammar learning in the class. Among these factors is the dominance of the traditional methods. A possible answer to this problem would be application of technology-assisted language instruction and particularly the Prezi and Telegram based learning environments. After the teaching grammar via Prezi and Telegram in the present study, the experimental group outperformed the control group with a statistically significant difference in mean scores. Such result yielded an evidence of the positive effects of the Prezi and Telegram on learners' grammar learning ability. Therefore, the present study recommends effective use of Prezi and Telegram in language teaching and learning. Based on the current research findings, a number of implications can be derived:

1. Decision-makers at the Ministry of Education should provide teachers with CDs of Prezi Presentation that can be used as an educational aid in EFL classrooms.
2. The Faculties of Education should design preparation programs to train teachers how to use and start making Prezi presentations.
3. EFL supervisors can design workshops to collaborate and make useful Prezi presentations.
4. EFL teachers should encourage implementing and using of Prezi Presentation Software and Telegram in teaching grammar.
5. Expert EFL teachers should ask to share their experiences, knowledge and their Prezi presentations with colleagues.

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