

# The Impact of ILTS on Vocabulary Achievement of Iranian University EFL Learners

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## ABSTRACT

*There are numerous language scholars who believe that computer assisted language learning has an eye catching effect on vocabulary achievement. To this end, the present research project seeks to shed light on the results of a study of the effect of interactive language teaching software (ILTS) on vocabulary achievement of Iranian university students EFL learners. The research was designed so that it would provide answers to the following question: Does ILTS have any significant effect on vocabulary achievement of Iranian university EFL learners? In order to answer the above question, some 60 students at Islamic Azad University of Aliabad Katoul, Aliabad Katoul, Golestan, Iran, were selected at random and then were divided into experimental and control groups. The results obtained throughout the study indicated there was a significant difference between ILTS users and nonusers in favor of the experimental group ( $p < .05$ ). Thus, the null hypothesis was rejected.*

**KEYWORDS:** IT; Vocabulary; ILTS; EFL learners

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## INTRODUCTION

In order to live in the world, we have to name things. Without names, the existence of an object, phenomenon, or even people is too difficult to accept. Accordingly, vocabulary is the building block of any communication in which the structure takes the position of cement to hold these bricks together. Words of a language, as Zhan-Xiang (2004) believed, are just like bricks of a high building; despite quite small pieces, they are vital to the great structure. In fact, vocabulary is the most fundamental component, without which communication is not feasible.

As Celce-Murcia (2002) pointed out, vocabulary learning has been the headache of the second language learners and is central to language acquisition, whether the language is first, second, or foreign.

As a matter of fact, learning vocabulary is one of the most tedious learning tasks confronting the language learners. According to the researcher's experience, it is difficult because of two important reasons: One reason is that there are a large number of words to be mastered, and the other is that little attention has been given to the problems of students in this regard.

As Carter and Nunan (2002) pointed out, media have undoubtedly always facilitated the task of language learning for both instructed and non-instructed learners. Just as children learning a first or second language grasp the meaning of words from the objects that surround them, non-native speakers (both inside and outside the classroom) make use of the here and now or objects in the immediate environment to process incoming speech.

The rapid spread of computers has been spurred by intensive development in the field of computer technology. Now computers have become much more powerful, yet smaller in size, more adaptable, more flexible, and easier to use. In addition, they are much more inexpensive than those of the last ten years. 'Computer literacy' becomes a big issue which is the knowledge about computers and computing when schools and governments have devoted resources to it.

We are living today in what some people call the digital age, meaning that computers have become an essential part of our lives. Young people who have grown up with PCs and mobile phones are often called the digital generation. Computers help students to perform mathematical operations and to improve their math skills. They are used to access the internet, to do basic research and to communicate with other students around the world. Teachers use projectors and interactive whiteboard to give presentations and teach sciences, history or language course. PCs are also used for administrative purposes-schools use word processors to write letters, and databases to keep records of students and teachers. A school website allows teachers to publish drills for students to complete online. Students can also enroll for courses via the website and parents can download official reports (InfoTech; Cambridge, 2008). The connection between computers and language is nothing new. We started seeing it in popular culture back in the 60's with Star Trek's communicators. The idea of a universal instant translator of any language into any other language is an extremely appealing problem to techno-linguists. We are still nowhere near to achieving that dream despite great strides that have been made with automatic translation services online.

In Iran according to the researchers' experience, the problem is that vocabulary is claimed to be considered and taught. But things are different when they come to the chalkboard: new words are taught mostly by bringing Persian equivalents. The innovative methods are not introduced and practiced well. Students day and night complain that they do not know how to learn vocabulary and why they forget them very soon.

### **REASONS FOR NEGLECTING VOCABULARY IN THE PAST**

It is surprising to know that vocabulary with such a great importance was neglected during 1940-1970. It was in large part due to language teaching approaches that were based upon American Structuralism and were dominant throughout that period of time (Richards & Renanadya, 2002).

Alongside the main reason, there are other reasons stated by Allen (1983) that comes as follows:

- Vocabulary was emphasized too much during the years before that time, so many who prepared teachers felt that grammar should be emphasized more than vocabulary.
- Specialists in methodology feared students would make mistakes in sentence construction if too many words were learned before the basic grammar had been mastered. Consequently, teachers were led to believe it was best not to teach much vocabulary.
- Some who gave advice to teachers seemed to be saying that word meanings can be learned only through experience, that they cannot be taught adequately in the classroom and it can simply be left to take care of itself.

When the theoretical foundations of structuralism were questioned, however, little by little more voices began to challenge that view and in the early 1980s the poor reputation of vocabulary in language teaching came to an end. Vocabulary development is both important and ignored. It has been ignored greatly during 1940-1970 (Celce-Murcia, 2002).

### **LEARNING WITH NEW TECHNOLOGIES**

In the second half of the 20th century, education technologies were one of the most developed areas in the world. Computers, which have entered the school life in the late 1950s in developed countries, are still developing day by day throughout the world. Today, they have become more powerful, faster, easier to use, more convenient and cheaper, and they can process and store much more data, as well. Equipment such as hard disks, CD ROMs, laser disks and printers used with computers have also developed rapidly. Using these, a computer program can handle sound, pictures and video along with characters.

At the end of the 20th century, the computer-mediated communication and the Internet have reshaped the use of computers for language learning. Computers are no longer a tool for only information processing and display but also a tool for information processing and communication. Learners of language, with the help of the Internet, can now simultaneously communicate with others or speakers of the target language all over the world. Nonetheless, As Duber (2000) claims computers can never replace the 'live' teacher, especially in language teaching, where the emphasis is on mutual communication between people. It can just play a role in teaching the second or foreign language as an aid to the teacher.

Today, there is huge amount of foreign language materials next to the traditional grammar book and dictionary. These materials include-course books, workbooks, programmed courses, cue cards, charts, newspapers, posters, picture cards, and cut outs, and so on. These are supplemented by other media, such as radio, television, slides, OHP, video tapes, games, toys, realia, as well as computers, multi media and the Internet.

### **CALL METHODOLOGY**

Computers are not very good at teaching themselves. How effective computers are in the language classroom depends on the way the teacher and students use them. Computers allow the user to carry out tasks which are impossible in other media such as providing feedback automatically on certain kinds of exercises or editing a piece of writing by deleting, moving and inserting text. Students can do some exercises on their own and have them marked by the computer. Multiple-choice and total deletion programs provide examples of this. Students can carry out exploratory work which is not assessed by the computer but which allows them to see the results of their decisions. Hubbard (2009) says that the examples of this can be seen in word-processing, spreadsheet and simulation programs.

Again they argue that students should have an opportunity to discuss with the teacher the activities they have done on the computer, otherwise they cannot learn effectively from them. In this respect, the methodology used in CALL classes is similar to that which is used in non-CALL classes, but there are some points that have to be distinguished.

### **LANGUAGE NEEDS ANALYSIS**

We need to take into account what learner ultimately wants to do through the language, and to think the course objectives to the kind of language interaction which the learner's purpose is likely to entail. Since the 1970s, the clarification of aims and objectives has been a major preoccupation of linguistics and language specialists. Among these, Stern (1983), cross-tabulates four wide categories of objective: proficiency, knowledge, affect, and transfer, with four equally broad content categories: language, culture, communication, and general language education. He states that 'the table merely provides a map' and that 'the actual circumstances of teaching require the interpretation of these categories in order to decide which objectives and content categories to give priority to' (Stern, 1983). Wilkins (1976) recommends adapting a semantic approach which focuses on the types of meaning learners will want to express and proposed a framework for categorizing what speakers communicative through language. He thinks that defining objectives is the first step in the construction of any language syllabus or course. For example, the Threshold Level Project, which seeks to define language learning objectives as exactly as possibly in terms of what the learner will need to do with the language.

### **THE FUTURE OF CALL**

Because computer use in instruction is at a relatively early stage of development, evaluation of computer-assisted language learning necessarily includes general and observable features such as whether the programs work, the screen displays are pleasing, adequate instructions are given, and answers are judged appropriately. Initially, the research and development in CALL is focus on what teachers are told to look for the effectiveness in reviewing CALL materials. Especially there are driven by two forces; advances in technology and the ability of language teach to exploit existing technology to the very fullest. But, at present CALL must be examined with an eye toward the curriculum of a particular language program and the learners for whom it is intended (Fox, J. et al. ,1990).

### **SUBJECTS**

In order to conduct the research project, the researcher selected some 134EFL university students with an age span of 18 to 46 years old. Their mother tongue was Farsi and all of which were freshmen EFL students. They were majoring in different academic fields namely, accounting, management, nursing, power electronics, and so on. These students were chosen randomly from Aliabad Katoul Islamic Azad University in Golestan province, Iran. Subjects' selection was on a random basis regardless of the classes. Then, the researchers limited the subjects to 60 on the basis of their scores. The researcher selected the subjects whose scores were one standard deviation below and above the mean. The subjects were divided into two homogeneous classes of 30, one of which was considered as the experimental group and the other as the control group.

### **MATERIALS**

Interchange, Book 1 (Richards, Hull, & Proctor, 2005) was the focus of the present study. The syllabus covered in the study is the same syllabus used by other instructors at different universities and language institutes. The would be covered syllabus in the study is the same syllabus used by other instructors at different universities and language institutes. This material is available into two forms: (a) hard copy for the control group, and (b) ILTS in the form of CD-ROM which includes video and sound clips, pictures, on line dictionary, answer key to exercises, and the feature of interactivity for the experimental groups; it includes the students book, work book as well as the video book. The ILTS CD is designed and developed by some EFL teachers who are heavily involved in technology

integration in EFL settings and by a team of computer science engineers, who have previous experience in computer programming and networking.

### **INSTRUMENTATION**

In this research, three data gathering devices were employed: Nelson 100 test, a proficiency test and an achievement test.

#### **NELSON TEST**

In order to check the homogeneity of the groups, a valid test of Nelson 100 (2001) was given to the students in the very first session of the program. Under testing conditions, the subjects were asked to take the Nelson 100 (2001) test in the very first session; the evaluation of this test was perfectly objective because each item had only one correct response.

#### **A PROFICIENCY TEST**

The vocabulary test, a word bank consisting of all new vocabulary items in Interchange, book 1 (Richards & Hull & Proctor, 2005), was given to the subjects in the first session of the program. The subjects were required to translate the given words into Farsi. The goal here was to make sure what words were already unknown to both groups.

#### **AN ACHIEVEMENT TEST**

A vocabulary test of achievement was administered both to the experimental group and the control group in the last session of the program. The subjects were asked to translate the given words into Farsi.

### **PROCEDURE**

This study tried to investigate if ILETS had any impact on vocabulary learning of Iranian university EFL learners. The null hypothesis in this research asserted that there was no relationship between ILETS application and vocabulary achievement of Iranian EFL learners. In trying to accept or reject the null hypothesis, researchers employed different T-tests.

#### **THE LANGUAGE PROGRAM AND THE FEATURES OF THE SOFTWARE**

The Interactive Language Teaching Software (ILTS) is an innovative, vibrant and amazing program. It aims at teaching English to foreign language learners. This interactive language teaching software powerfully combines theory, research, and practice. This software is created with the purpose of speeding up the production of multimedia and autorun and supports C, C++, Java, Visual Basic language. Using AutoPlay Media Studio is more beneficial in comparison to other similar softwares because of its speed and simplicity. AutoPlay Media Studio™ 8.1 enables the user to get familiar with all the facilities without having any programming knowledge, in a short time and also to use the gained knowledge properly. So, even an elementary teacher can use AutoPlay Media Studio™ 8.1 for presenting his or her educational contexts to the students very easily. AutoPlay Media Studio™ 8.1 is suitable for producing educational informative and commercial softwares.

This program provides the variety of ways in which foreign language components are combined in preparing students to adapt methods, materials, and curricula to a variety of culturally and linguistically diverse settings. The interactive language teaching software (ILTS) is language learning software which is compatible with Windows (XP, Seven, eight and ...). The ILTS benefits all English language learners through explicit academic language instruction, opportunities for structured academic discussion, scaffold writing techniques, and added teacher support. It is designed to teach language with effectively, easily and enjoyably.

The ILTS approaches language learning the same way that we first learned a language — using a natural method that teaches new language directly, without translation. That means no more confusing grammar explanations or vocabulary lists to memorize. Interchange, Book 1 (Richards, Hull, & Proctor, 2005) is the focus of the present study. The would be covered syllabus in the study is the same syllabus used by other instructors at different universities and language institutes. This material is available into two forms: (a) hard copy for the control group, and (b) ILTS in the form of CD-ROM which includes video and sound clips, pictures, on line dictionary, answer key to exercises, and the feature of interactivity for the experimental groups; it includes the students book, work book as well as the video book. The ILTS CD is designed and developed by some EFL teachers who are heavily involved in technology integration in EFL settings and by a team of computer science engineers, who have previous experience in computer programming and networking.

To accomplish the purpose of the study, researchers carried out the following procedure: at the outset, a vocabulary test (as a pretest) consisting of all new words in Interchange, book 1 (Richards & Hull & Proctor, 2005), was administered to the subjects in both groups. Both groups were to translate all of those given words into Persian. The goal here was to make sure what words were unknown to the subjects in both groups. Then, the already known words were excluded from the program of both groups.

During the study, researchers taught each group in 15 sessions (each session 90 minutes). Throughout the 15 session instruction, researchers presented and practiced all these unknown words through the course book to the subjects in the control group and the ILTS to the experimental group. To be sure of the efficiency of the treatment, researchers administered a vocabulary post test both to the experimental and the control group. The scores based on the result of the pre-and post-test showed the impact of the two methods. Finally, a T-test was conducted to examine whether the difference of the mean score of the two groups was significant.

**Table 1.** *T- Test paired samples: Pretest Control Group and Experimental Group*

|      |                    | Mean  | N  | Std. Deviation | Std. Error<br>Mean |  |
|------|--------------------|-------|----|----------------|--------------------|--|
| Pair | control group      | 67.73 | 30 | 12.60          | 2.30               |  |
| 1    | experimental group | 66.73 | 30 | 12.51          | 2.28               |  |

  

| Paired Samples Correlations |                        |    |             |      |
|-----------------------------|------------------------|----|-------------|------|
|                             |                        | N  | Correlation | Sig. |
| Pair 1                      | control - experimental | 30 | .358        | .052 |

  

| Paired Samples Test |                                    |        |                |                    |  |       |
|---------------------|------------------------------------|--------|----------------|--------------------|--|-------|
|                     |                                    | Paired | Differences    |                    | 95% Confidence Interval of<br>the Difference |       |
|                     |                                    | Mean   | Std. Deviation | Std. Error<br>Mean | Lower  | Upper |
| Pair                | pretest                            | 1.00   | 14.23          | 2.60               | -4.32  | 6.32  |
| 1                   | Control<br>pretest<br>Experimental |        |                |                    |  |       |

  

| T    | Df | Sig. (2- tailed) |
|------|----|------------------|
| .385 | 58 | .703             |

As Table 1 illustrates, the Control Group has a mean of 67.73, and the Experimental Group a mean of 66.73. The T-test (.385) between the two groups is not significant at .05 concluding that the two groups behaved the same and are, therefore, homogenous.

**Table 2.** *T- Test Paired Samples: Posttest Control Group and Experimental Group*

|      |                    | Mean   | N  | Std. Deviation | Std. Error<br>Mean |
|------|--------------------|--------|----|----------------|--------------------|
| Pair | control group      | 129.17 | 30 | 20.79          | 4.12               |
| 1    | experimental group | 140.33 | 30 | 31.34          | 5.72               |

Paired Samples Correlations

|                             | N  | Correlation | Sig. |
|-----------------------------|----|-------------|------|
| Pair 1 control-experimental | 30 | .178        | .346 |

Paired Samples Test

|                               | paired differences |                |                 | 95% Confidence Interval of the Difference |       |
|-------------------------------|--------------------|----------------|-----------------|---|-------|
|                               | Mean               | Std. Deviation | Std. Error Mean | Lower                                     | Upper |
| Pair 1 control - experimental | 31.17              | 33.55          | 6.12            | 18.64                                     | 43.69 |

| T     | Df | Sig. (2- tailed) |
|-------|----|------------------|
| 5.089 | 58 | .000             |

The main determining factor for the effectiveness of the treatment in this research is the difference between the performance of the Experimental Group and the Control Group on the vocabulary test (as a posttest). Results show that the Experimental Group with a mean of 140.33 did outperform the Control Group with the mean of 129.17. The T-test (5.089) was significant at .05 levels. It may be concluded that the treatment given to the Experimental Group had a positive impact on the students' performance on the vocabulary test.

**Table 3.** *T- test Paired Samples: Pretest, Posttest Experimental group*

|                       | Mean   | N  | Std. Deviation | Std. Error |
|-----------------------|--------|----|----------------|------------|
|                       |        |    |                | Mean       |
| Pair pretest          | 66.73  | 30 | 12.51          | 2.28       |
| 1 experimental        | 140.33 | 30 | 31.34          | 5.72       |
| posttest experimental |        |    |                |            |

Paired Samples Correlations

|  | N  | Correlation | Sig. |
|--|----|-------------|------|
| Pair 1 pretest - posttest experimental | 30 | .054        | .777 |

|  | Paired Samples Test |                |                 |        |   |
|--|---------------------|----------------|-----------------|--------|---|
|  | paired              |                | differences     |        | 99% Confidence Interval of the Difference |
|  | Mean                | Std. Deviation | Std. Error Mean | Lower  |   |
| Pair 1 pretest - posttest experimental | -73.60              | 33.11          | 6.05            | -90.26 | -56.94                                    |

  

| T       | Df | Sig. (2- tailed) |
|---------|----|------------------|
| -12.175 | 58 | .000             |

As Table 3 indicates, there was a significant difference in the vocabulary learning of the students in the Experimental Group after the treatment.

### RESULTS AND DISCUSSION

The research reported here casts a new light on the question of CALL effectiveness in the context of EFL learning and teaching.

CALL users' scoring significantly higher than nonusers indicated that the effect was due to CALL rather than other variables. As can be seen, all users scored significantly higher than the control group. These results were in alignment with the principles of constructivism, which is used as part of the theoretical framework of the present study. Constructivism claimed that technology could (a) provide a context for learning that supports both autonomy and relatedness, (b) could support self-regulation through the promotion of skills and attitudes, and (c) could strengthen the learner's tendency to engage in intentional learning processes. In addition, this significant difference is consistent with other studies that investigated the effect of CALL on learning foreign languages (Charichak, 2000; Vrtacnik et al, 2000; Ayres, 2002; Nesselhauf & Tschichold, 2002; Jung, 2002; Bayraktar, 2002).

### CONCLUSION

CALL has important potential for English language teaching. If used properly with clear educational objectives, CALL can interest and motivate learners of English. CALL can increase information access to the learner, provide flexibility to instruction and thereby better serve the individual's learning pace, cognitive style and learning strategies. CALL allows learners to control their own learning process and progress. Using effective and suitable software applications, CALL can provide communicative meaningful language learning environments. Good quality and well-designed CALL software can offer a balance of controlled practice and free communicative expression to the learners, including immediate feedback. In the future, with the advance of computer technologies, it is expected that CALL will be able to absorb some teaching functions. The effectiveness of CALL relies on how CALL is utilized to meet language learning goals for individualized learners in specific educational settings.

The role of computers in language teaching has changed significantly in the last three decades. Previously, computers used in language teaching were limited to text. Simple simulations and exercises, primarily gap-filling and multiple-choice drills, abounded. Technological and pedagogical developments now allow us to integrate computer technology into the language learning process. Multimedia programs incorporating speech-recognition software can immerse students into rich environments for language practice. Concordance software with large language corpora provides students with the means to investigate language use in authentic contexts. And the Internet allows for a great number of opportunities to communicate in the target language, access textual and multimedia information, and publish for a global audience.

### CONFLICT OF INTEREST

The authors declare no conflict of interest.

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