

The Effect of Computer-Assisted Language Learning on Iranian EFL Students Listening Comprehension

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ABSTRACT

Listening has often played second fiddle to its counterparts, speaking (Brown, 2007). Because of the complexity involved in both teaching listening and assessing it, listening skill hasn't been overlooked in comparison with other skills, speaking, reading, and writing. This problem has been multiplied when somebody looks at listening skill in EFL contexts. This research describes a study exploring the effect of Computer-Assisted Language Learning (CALL) on listening skill of Iranian EFL learners. A total of 74 Iranian Advanced students of English all matched with the age range of 20 to 22 participated in this study. They were divided into one experimental group (N = 37) and one control group (N = 37). While in the experimental group CALL was the dominant instrument in teaching listening skill, in the control group there was no use of CALL materials. The findings of this study reveal that CALL materials have significant effect on improving Iranian Advanced EFL learners listening.

Keywords: EFL students listening; English listening

1. INTRODUCTION

As Nunan (2000) argued, listening is Cinderella skill in second language learning (Bahrami, 2011). While listening has been overlooked by its elder sister-speaking, nobody doubts about its importance in the way of learning a new language. Listening and reading are therefore secondary skills-means to other ends, rather than ends in themselves (Bahrami, 2011). The importance of listening for second or foreign language acquisition has been underlined by authors such as Feyten (1991).

It is unsurprising that learners perceive listening as difficult. Buck (2001, p. 29) emphasizes the complexity of the listening process, in which the listener must use a wider variety of knowledge sources, linguistic and non-linguistic, to interpret rapidly incoming data. The application of linguistic knowledge in comprehension is usually termed bottom-up processing, whereby the sounds, words, clauses and sentences of a passage are decoded in a fairly linear fashion to elicit meaning (Rost, 2002). In 'top-down processing', the listeners' knowledge of the topic, their general knowledge of the world and of how texts generally 'work', will inter act with this linguistic knowledge to create an interpretation of the text (Buck, 2001, p. 29). While it is generally agreed that listening requires a combination of both forms of

processing, their respective contribution to effective listening is still not clearly understood (Tsui and Fullilove, 1998).

One of those ways that could pave the way much faster than other proposed ways was using Computer-Assisted Language Learning (CALL) in listening classrooms (Meihami et al 2013). The computer assisted learning (CALL) are flourishing with such a high speed that it is almost impossible for language instructors to keep up with them and CALLs are always a step ahead. According to Jamieson & Chapelle 2010 CALL materials are intended to be attractive and beneficial for learners, and publishers tend to claim that their materials succeed in achieving those goals. Other like Brown 2007 stated that instructors shouldn't let the allure of computer-based technology fool them into thinking that computers will magically make their students happy and successful. Jamieson & Chapelle 2010 stated that by using CALL materials in listening classroom learners could benefit from these materials in improving their listening comprehension.

In this study, we are heading for investigating the impact of CALL materials on Iranian EFL learners listening comprehension. The priority of this research is all about the EFL context which wasn't the center of attention in the previous done researches.

1. 2. Review of Literature

Research on educational technologies has been centered on the issues dealing with their effectiveness in second language learning and teaching (Meihami et al 2013, Marzban, 2011). Studies that investigated students' language improvement and evaluation of CALL materials as cited in G. Wiebe and K. Kabata 2010 (e.g. Ayres, 2001; Christie, 2001; Heller, 2005; Holmes, 1998; Ma & Kelly, 2006; Stepp-Greany, 2006) has total shows positive outcomes, as illustrated by a student's comment reported by Holmes (1997):

I think that the technology is changing the education system and the main purpose of education is that people become fit for the modern technology society. (p. 1)

With the improvement in technology in 1960s in all aspects of science and especially in language teaching related science, there was a sense of euphoria that this can improve the way of teaching and learning. At that time language laboratory, tape recorder, and video projector were all of these technology. The potential offered to language teaching by tape-recorder was enormous - now possible to bring native speaking voices into classroom. Editing and self-recording facilities were now available (Mirhassani, 2003).

Marzban (2011) stated that according to Brinton and Holten (1997) media help us to motivate students by bringing a slice of real life into the classroom and by presenting language in its most complete communicative context. Media can also provide a density of information and richness of cultural input not otherwise possible in the classroom, they can help students to proceed in their own pace and free the teacher from excessive explanation, and they can provide contextualization and a solid point of departure for classroom activities.

Wiebe and Law (2005) did a survey on how is the effect of CALL on listening comprehension on a group of students. The findings of their research revealed the fact that CALL materials if be used in constant way could be significant in improving students listening comprehension.

In 2011, a research was done by Ghasem Barani on EFL students. In his research which was cited in Marzban (2011) Barani investigated the use of CALL material in listening classroom. For so doing, he was using *Tactics for Listening, Developing*, (Jack C. Richards, 2004) as CALL material on EFL students. After two months and when he gathered his research

data he came to conclusion that CALL material had significant impact on students of EFL context.

Based on the foundation of described researches, this research has devoted an in-depth investigation and of using CALL material in listening comprehension classroom to see its impact on EFL advanced students listening comprehension.

2. METHODOLOGY

2. 1. Research Question

Does using CALL material for Iranian EFL advanced students improve their listening comprehension?

2. 2. Research Hypothesis

For the purpose of this research a Null hypothesis was employed:
Using CALL has no effect on Iranian EFL advanced students listening comprehension.

2. 3. Participants

A total of 74 Iranian EFL advanced students all male and with age range from 20 to 22 participated in this study. These students enrolled at a summer language learning program in Academy of English Language Institute in Qazvin, Iran. For the purpose of this research the institute provided a free of charge Listening Comprehension Program (LCP) for volunteer students. So these 74 students were descended from 106 who registered in the program. The LCP program started in May 2013 and finished in July 2013. The 74 students then divided into two groups; an experimental group (Class A) including 37 students and a control group (Class B) with 37 students. In the experimental group CALL materials were used to teach listening and to do the related task of listening comprehension. On the other hand, in the control group students were under a traditional method of learning listening comprehension skill and doing the related listening task. There were two instructors for the purpose of this research. In the experimental group the instructor was well-familiar with computer science and CALL material. The program was running for two months and in 16 sessions. Each week there were two sessions of LCP for the students. Both classes were held on odd days, 10-12 a.m.

2. 4. Instruments

Four Corners One by Jack C. Richards and David Bohalk was used as CALL materials for the purpose of the listening comprehension program. This software published in 2012 is a new program software for teaching and learning listening comprehension that has both CD ROM and MP3 facilities. Fig. 1 illustrates some of this software features:

As it is shown in Fig. 1 This software is totally computer based. It has facilities like Play and Pause whenever the learner wants, recording learner voice for further exercises, key to Learner's answer, and answer to learner's problems in association with the knowledge of computer.



Figure 1. Four Corners (Jack C. Richards and David Bohalk).

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On the control group (Class B), students were working on listening tasks of Four Corners with the help of its *mini CD*. A pre test, middle posttest, final posttest design was run in this research study. For fulfilling this design *Tactics for Listening, Developing*, (Jack, C., Richards, 2004) tests were used in both classes. Finally, *SPSS 16* was used which promoted the accuracy of the results.

2. 5. Procedure

In May the second, 2013 students enrolled in the LCP. At the time of registration they were told that the institute is going to give a listening comprehension in the first session of the program. A total 74 Iranian EFL advanced students who were divided into an experimental group (N = 37) and the control group (N = 37) started their classes. Class A, the experimental group, was called CALL class due to the fact that in this class the instructor taught listening comprehension through the medium of CALL materials. In the first session of the program the pretest was held based on *Tactics for Listening, Developing* tests. It was a paper and audio test in which students listen to a text and answer the related multiple tests. From the second session

to the 10th one, students in the class A went through the CALL materials to work on the listening comprehension tasks of *Four Corners*. There was a Computer Room provided by Academy of English Language Institute for the experimental group to attend in and work on CALL materials. In his way for teaching *Four Corners*, when the teacher came across a listening comprehension task he and his students used *Four Corners Software* to fulfill the task. Fig. 2 shows one of listening task of *Four Corners* in which four people are talking about their weekend.



Figure 2. Using Four Corners listening task based on Four Corners CALL materials.

In this task students have to listen to software and select a true/ false option. The difference between this kind of CALL material and the traditional mp3 material is students are able to Play and Pause, to Record their voice, and to Check the Key on the spot. They are also able to print their result for further investigation on their problematic sections.

On the tenth session another test, middle posttest, was held the same as the previous one: pretest. The class A had another eight session to the end of the LCP and in the last session the final posttest was held based on the final test of *Tactics for Listening, Developing*.

In the other class, Control group or class B, however, another system of teaching listening comprehension to Iranian EFL advanced students was in progress. In class B pretest was held as the same test for class A. During each session period, there was just mp3 player for covering the listening comprehension tasks. The instructor *Re-Played* each task mp3 audio for two times

and during it student did the exercises. In the tenth session the middle posttest was held with the materials of *Tactics for Listening, Developing*. Then students attended another eight sessions as the same procedure of first ten sessions. In the 18th the final posttest was held and the data gathered for result part.

3. RESULT

This section presents the results of the surveys administered prior to and at the end of the course. At the end of the course and after the data gathered the following result achieved. First Table 1 is the illustration of descriptive statistics for both experimental and control groups labeled as Class A and Class B during the Pretest, Middle posttest, and Final posttest design.

Table 1. Descriptive Statistics for Class A and Class B

Group	N	Pre-test		Middle Post-test		Final Post-test	
		M	SD	M	SD	M	SD
Class A	37	56.78	13.26	63.55	11.31	69.91	12.14
Class B	37	55.89	13.86	56.85	13.85	58.08	12.60

Means score of the two groups have revealed that although there is improvement in both groups, the improvement of Class A in which listening comprehension was taught with the help of CALL materials is much more than Class B in which listening comprehension was taught in a traditional way through mp3 player. The mean score of Class A in the pretest time was 56.78 and this reached 69.91 in the final posttest, it means the means score of Class A improved about 13.13, but the mean score of Class B in the time of pretest is 55.89 and in the final posttest is 58.08; the improvement amount of the means score is very low and about 2.19 that is ignorable. These statistical data clearly reject the null hypothesis and prove the affectivity of using CALL in improving listening comprehension skill but we did two way repeated ANOVA to see the effect of in between subjects factors. Table 2.shows this statistics.

Table 2. Tests of Between-Subjects Effects.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Test	Class A	3194.018	2	1597.009	10.606	.000	.164
	Class B	88.883	2	44.441	.245	.783	.005

a. R Squared = .164 (Adjusted R Squared = .149)

This table helps us to reject the null hypotheses of this research study. Class A $p = .000$ that showed the affectivity of CALL material in and improving students listening comprehension in EFL context. So, the null hypothesis is rejected and the affectivity of using

CALL in Iranian EFL advanced students listening comprehension is proved. The answer to the research question is also positive that CALL material can improve listening comprehension of Iranian EFL advanced students.

For a clearer description of Class A improvement we suggested the profiles of the both classes in Fig. 3 and Fig. 4.

Fig.3 Means Score of Class A: Using CALL in Listening Comprehension Classroom

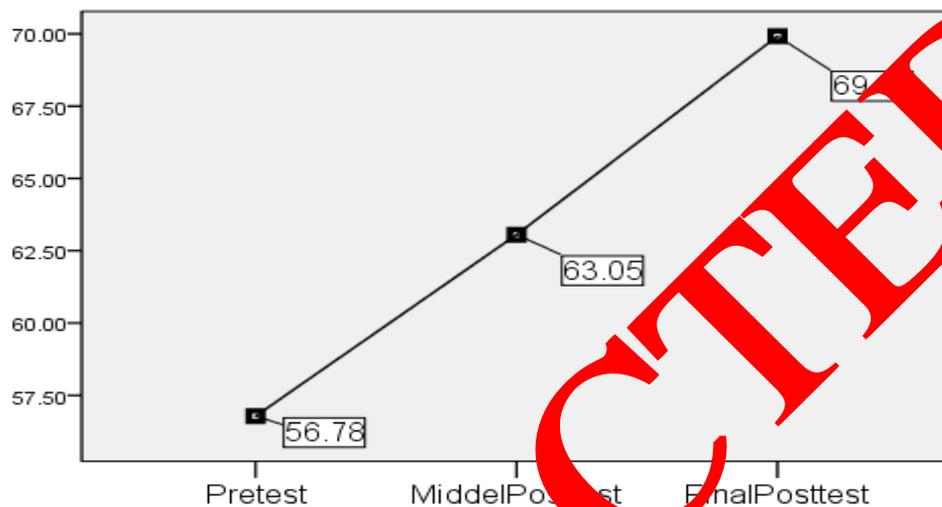


Fig.4 Means Score of Class B: Teaching Listening Comprehension with mp3



The trajectory of Fig. 3 that is for Class A in which CALL materials were used for the purpose of improving listening comprehension skill is much more than the trajectory of Fig 4.

that is for Class B in which listening comprehension was worked by mp3. The high trajectory of Fig. 3 is because of its high means score improvement.

4. CONCLUSIONS

The results of this investigation are good proves for the previously done researches on the effect of CALL materials on improving listening comprehension skill of Iranian EFL advanced students (Buck, 2001, p. 29; Rost, 2002; G. Wiebe and K. Kabata 2010; Heller, 2005; Holmes, 1998). According to the findings of this research using CALL materials in the listening comprehension classroom can improve EFL students listening comprehension. The very rational reason for these results is when students attend in a listening comprehension classroom which is equipped with Computer-Assisted Language Learning materials they have some facilities that help them to work more effectively on the listening comprehension tasks. In so doing, two important cases have happened (A) students seize their time and use the most of it to improve their ability in listening comprehension skill and (B) using these kinds of materials (CALL materials) make them less exhausted in comparison with traditional methods like Player Method. On the other hand, we don't have these two cases in the other class (Control Group) so students of this class weren't able to improve their listening comprehension skill as much as the CALL class improved.

According to Armando 2012 educational materials that bring fun into the language learning classroom have great impacts on learners' intrinsic motivation to learn second language. In this aspect if we see CALL materials as Armando described, we can have another rational reason for the improvement of listening comprehension skill in the experimental group of this research.

It should be mentioned that the obtained results of the current study is limited to use CALL materials in listening comprehension to Iranian EFL advanced students who are living in an EFL context. Further studies can be done by researchers on other language proficiency levels such as Intermediate to see the results on them. The age is also a limited factor in this study. In the current study the participants' age were from 20 to 22.

A pedagogical implication of the findings of this research is for language planners and teachers to make use of Computer-Assisted Language Learning materials in listening comprehension classrooms to help second language learners and foreign language learners to improve their listening comprehension skill.

Reference

- [1] Bakhshi, & Seyyedrezaie, S. Hassan (2010). *English for the students of computer science*. Tehran: Bahnama Press.
- [2] Bax S., *System* 31 (2003) 13-28.
- [3] Blackie, D. (1999). What use in the internet for classroom teachers? *English Teaching Professional*, p. 18.
- [4] Brierley, W. & Kemble, I. (1991). *Computers as a tool in language teaching*. West Sussex: Ellis Harwood Limited.

- [5] Brinton, D. M., and LaBelle, C. (1997). *Using Internet Resources to Teach Pronunciation*. *Speak out!* Newsletter of the IATEFL Pronunciation Special Internet Group, 21.
- [6] Celce-Murcia, M. (2002). *Teaching English as a second or foreign language* (3rd Ed.). U.S.A.: Heinle & Heinle Publishers.
- [7] Chapelle C., *TESOL Quarterly* 24(2) (2010) 199-225.
- [8] Crystal D. (1987). *The Cambridge encyclopedia of language*. New York: CUP.
- [9] Cushion S., Dominique H., *Computer Assisted Language Learning* 15(5) (2002) 501-518.
- [9] Escalada L. T., Zollman D. A. *Journal of Research in Science Teaching* 34(4) (1997) 467-489.
- [10] Fox, J. et al. (eds.) (1990). *Educational Technology in Modern language learning*. University of East Anglia and the Bell Trust.
- [11] Harmer, J., (2001). *The Practice of English Language teaching*. Longman.
- [12] Hatch, E., & Farhady, H. (1981). *Research design and statistics for applied linguistics*. Tehran: Rahnama Press.
- [13] Hussein Meihami, *International Letters of Social and Humanistic Sciences* 8 (2013) 24-33.
- [14] Hussein Meihami, *International Letters of Social and Humanistic Sciences* 8 (2013) 8-23.
- [15] Hussein Meihami et al., *International Letters of Social and Humanistic Sciences* 8 (2013) 57-65.
- [16] Hussein Meihami et al., *International Letters of Social and Humanistic Sciences* 9 (2013) 49-58.
- [17] InfoTech, (2008). *English for computer users*. Cambridge: Cambridge University Press.
- [18] Jarvis H., *Current issues in TESOL* 9(1) (2000) 62-69.
- [19] Mirhassani A. (2003). *Approaches, Methods, and Theories in EFL*. Tehran; Zabankadeh Press.
- [20] Richards, J. C. and Renandya, W., A. (2002). *Methodology in Language Teaching*. Cambridge: Cambridge University Press.
- [21] Richards, Jack, C., (2004). *Tactics for Listening, Developing*, Cambridge: Cambridge University Press.
- [22] Warshawer, M., (1996). Computer-assisted language learning: an introduction. In: Fotos S. (Ed.), *Multimedia Language Teaching*. Logos, Tokyo, pp. 3-20.
- [23] Warschauer, M., (2000). "CALL for the 21st Century" IATEFL and ESADE Conference, 2 July 2000, Barcelona, Spain. Available from: <http://www.gse.uci.edu/markw/cyberspace.html> (Accessed 25/1/02).