The Effect of Multimedia Computer Assisted Language Learning (MCALL) on Iranian EFL Learners' L2 Listening Comprehension

Gholam-Reza Abbasian

Assistant Professor, Imam Ali University and Islamic Azad University, South Tehran Branch, Tehran, Iran

Solmaz Movahedfar [*]

PhD Candidate, Islamic Azad University, Kish International Branch, Iran

Abstract

The use of technology, especially CALL, in language teaching and learning has received momentum. Additionally, incorporation of multimedia into CALL (MCALL) has opened a new horizon in education in the last decade. To shed more light on the pedagogical implications of MCALL, this study focused on the effect of MCALL on the listening comprehension of intermediate EFL learners. To do so, 30 homogeneous male and female participants were selected from a poll of EFL learners and were randomly assigned into two groups: the experimental and comparison groups. The former received 10 sessions of instruction using the MCALL, while the latter was exposed to the mainstream of conventional method of teaching listening. T-test analysis of the post-test results revealed a significant difference between the groups as the former group outperformed over the latter one in developing listening comprehension. The findings revealed that the use of MCALL could improve the learners' listening skill.

Key words: multimedia-CALL, listening comprehension; EFL learners

INTRODUCTION AND BACKGROUND

The development of computer-assisted language learning has created the need and opportunity for investigating the effects of multimedia on listening comprehension in recent years. And a great many of studies have shown that computerized media and a multimedia environment can be very helpful for leaning foreign language listening skill. These encouraging results of the studies have prompted the work described in this paper. MCALL is a new issue in both computer and linguistics sciences. The computer is an unavoidable technology that is prevalent in daily life. With the growing sense of unity between linguists and computer scientists, some of the mysteries of language acquisition will be unraveled (Kenning, 1990). Combined modifies in computer technology have led technology into the 21st century. According to Crystal (1997), using multimedia technology in teaching English as a foreign language can help to solve some classroom difficulties and can train students to be autonomous learners. Muffoletto and

---

Knupfer (1993) also found that the effect of the computer on education has influenced the social world. There are many peripheral applications for computers in the educational domain. Language testing, language research, and school management, for instance, all offer scopes for computer application.

With computer technology, Web-based learning has become a common choice in education institutions (Bauer, 2002, p. 31). Language teachers often use all the media types that go to make up multimedia in their teaching nowadays. The variety of media such as text, graphics, audio, and video for delivering content has attracted many instructors and students to use the Internet for distance education (Ali, 2003). These multimedia components get and hold learners' interest, which most people seem to remember more efficiently what they have experienced rather than what they have just read or listen. Listening has become an important part of many second or foreign language programs. Celce-Murcia (1991) mentioned that, listening is used far more than any other single language skill in normal daily life. She further argued that on average we can expect to listen twice as much as we speak, four times more than we read, and five times more than we write. Listening skill developed faster than the other three skills and could affect reading and writing abilities in learning a new language (Scarcella& Oxford, 1992; Vandergrift, 1997).

STATEMENT OF THE PROBLEM

English language is an international language and listening is used far more than any other single language skill in normal daily life and that is at the core of second language acquisition and therefore demands a much greater prominence in language teaching. Research efforts have been going on to investigate ways to improve learning English as a foreign language. As Celce-Murcia (1991) mentioned, on average we can expect to listen twice as much as we speak. The problem is that students who have received several years of formal English instruction frequently face difficulties to use the language.

Unfortunately, in Iran, not only textbook writers and syllabus designers but also the teachers have paid much attention to modern technologies, especially CALL and MCALL in teaching English. Therefore, the present study was designed to apply CALL in the area of listening comprehension in Iran. So it was tried to see if MCALL program has any significant effect on the improvement of Iranian EFL learners' listening comprehension. Given the importance of listening in language learning and the opportunities that MCALL provides the present study addresses the following question:

- Do MCALL programs have any significant effect on the improvement of the intermediate EFL students' listening comprehension?

METHOD

Participants

The original population included 54 male and female EFL learners out of them 30 were selected as homogeneous based on their performance on Oxford Placement Test (OPT) as a general proficiency test. Their age range was 16-23 years old.

Materials

To collect the required data, the following materials were employed in this study:

1) Oxford Placement Test (Allan, 2004) which is a standardized test of Oxford University to determine EFL learners' proficiency level

2) The listening comprehension pre-test, a version of KET (key English test) was used at the beginning of the study to be sure that all participants are homogeneous in terms of listening comprehension. The test procedure consisted of 25 listening questions, including 10 table completion items, and 15 multiple choices.

3) The listening section of another version of KET was adopted as a listening comprehension post-test.

Procedure

To accomplish the purpose of the study, the following procedures were carried out:

In order to select the required participants at intermediate level of proficiency, 54 students from language institute were tested through administering the OPT (Oxford Placement Test). Then, 30 students whose scored were 31+ in grammar and vocabulary and 8+ in reading section were selected as the main sample for the present study, The random selection procedure initiated with assigning 30 Iranian EFL learners into two groups of 15, namely experimental and control. Although these two groups were selected from among a population of students who were at the same proficiency level, since the study concentrated on listening skill, a listening test, adapted from KET sample tests, was administered to both groups to ensure that they were also homogenous in terms of listening ability.

In treatment phase, while the participants in control group was taught in the traditional way in which they were limited to listening to the CD and answering some questions from their book. The experimental group was taught listening with the help of an online English learning website called www.talk2meEnglish. It is mentioned that the contents of listening lessons were similar in two groups. The treatment lasted 10 sessions, 2 sessions a week, each session lasted one and a half hour. Each participant of the experimental group used the website to do the listening exercises related to the vocabulary and grammar that they were taught each lesson. They watched the video

lessons in the website and asked to questions were printed to them. The questions included of matching, multiple choice, table completion, and form filling.

After doing the treatment, the researcher administered the posttest similar to that of pre-test to compare the mean scores of the two groups in both pretest and posttest to find out the fact that whether MCALL-based program can affect on listening comprehension enhancement.

RESULTS

Based on the descriptive statistics of the pretest, it was revealed that both the control and experimental groups had almost the same mean score on the pretest. Thus, both groups were homogeneous. The control group received the mean score of 14.62and the experimental group received the mean score of 15.71.The mean scores of both group showed that there was not any significant difference between both groups on the pretest. The data given in table 1 depicts the descriptive statistics of the pretest for both groups. The descriptive statistics tabulated shows that both the experimental group and the control group have performed almost the same on the pretest and there exists no significant difference between the two groups.

Table 1. Descriptive statistics of participants' scores on pre-test

Groups	N	Mean	Std. Deviation
Control	15	14.6250	3.72865
Experimental	15	15.7187	2.25683

As table 2 shows, two raters rated the listening of the students. The inter-rater reliability for the rater1 and rater 2 on listening is .75 ($P = .000 < .05$). The inter-rater reliability coefficient is statistically significant.

Table 2. Inter-Rater Reliability of Listening (as pretest)

R1Prelistening	R2Prelistening
Pearson Correlation	.75
Sig. (2-tailed)	.000
N	30

As for the descriptive statistics of the posttest, it was revealed that the experimental group using multimedia instruction outperformed control group in improving listening comprehension. The descriptive statistics provided in table 3 shows that the experimental group outperformed the control group on the posttest and actually there exists a significant difference between the two groups. Thus, this study showed that the web-based program has improved the listening comprehension of the TEFL students in the experimental group.

Table 3. Descriptive statistics of participants' scores on post-test

Groups	N	Mean	Std. Deviation
Control	15	16.6667	1.71825
Experimental	15	17.6667	1.23443

Table 4. Inter-Rater Reliability of Listening (as Posttest)

	R1Postlistening	R2Postlistening
Pearson Correlation		.82
Sig. (2-tailed)		.000
N		30

Table 4 shows the reliability index of the listening posttest, which is .82. Subsequently the independent sample t-test is run to investigate whether two groups differed significantly from each other. In which the means of both groups on posttest differ significantly as the sig (2-tailed) indicates the value *p*=.078.

Table 5. Independent Samples t-test between the control and experimental group on post-test

	Levene's Test for Equality of Variances		t-test for Equality of Means				95% Confidence Interval of the Difference	
	f	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Equal variances assumed	1.000	.326	1.831	28	.078	1.00000	-.11899	2.11899

DISCUSSION AND CONCLUSION

Generally, this study was trying to determine the effect of MCALL on listening comprehension of Iranian EFL learners. Specifically, this study attempted to investigate whether there is a difference between the performance of the experimental group and the control group who received MCALL treatment and the control group who underwent the traditional ways of teaching listening.

In addition to determine whether the Means of two groups under investigation, were statistically significant. In the present study, the independent variables were the type of MCALL treatment, and the dependent variable consisted of scores on the posttests administered after the completion of the treatment. This study had two variables named as MCALL instruction as independent variable and the independent variable, which is the obtained from both groups. Furthermore, the comparison of the Means of control and experimental group on their pretests and posttests was calculated respectively (Table 1, 3). Finally, the homogeneity of variances assumption was checked which its output shows the t-test. In order to measure the participants' learning and to find whether there was any significant grammar and vocabulary achievement after them receiving the MCALL treatment, an independent sample t-test was performed. The results, as is shown in Table 5 indicated that there is a statistical significant difference (t = 1.831, p < .07) between the performance of experimental group before and after receiving treatment. In other words, their listening comprehension improved as a result

of MCALL instruction as a treatment. So, the present study proves that using MCALL has a significant impact on the improvement of the listening ability; this results support Crystal (1997) which revealed that the students performed better in listening test when they were allowed to use the combination of visual and graphic (MCALL) programs.

This result is in line with previous studies including kenning (1990), Leflore (2000), and Celce-Murcia (1991) who confirmed that Web-based education is becoming popular and effective to provide successful language learning. This result confirms the effectiveness of MCALL, and that can be a good addition to the traditional ways of teaching listening (Muffoletto and Knupfer, 1993).

The findings of the study support the idea that the use of visual media supports listening comprehension and helps increase achievement scores. In particular the results lead one to conclude that an effective way to improve the listening comprehension is to offer graphics to illustrate the definition. Students were likely motivated to success and achievement in vocabulary and grammar learning when visual text was presented with graphics because audio text alone did not usually translate in a manner that is meaningful to the learners, while graphics allowed them to visualize the definition in a more meaningful way.

The aforementioned functions of the Website demonstrate its significant value and importance in education, especially by expanding the use of computers in Iran, EFL teachers can be encouraged to employ Mcall-based programs as an available supporting learning tool to facilitate language teaching. Therefore, additional research could enable administrators to better provide for the needs of instructors in the classroom. Additionally, the findings of this study and in future research could also encourage instructors to enhance their knowledge of MCALL to improve their teaching of listening.

REFERENCES

Ali, A. (2003). Instructional design and online instruction: Practices and perception. *TechTrends, 47* (5), 42-45.

Beatty, K. (2003). *Teaching and researching computer-assisted language learning*. London: Pearson Education

Bauer, J. F. (2002). Assessing student work from chatrooms and bulletin boards. In R. S. Anderson, J. F. Bauer, & B. W. Speck (Eds.), *Assessment strategies for the online class: From theory to practice* (pp. 31-36). San Francisco: Jossey-Bass.

Celce-murcia, M. (2001). *Teaching English as a second or foreign language (3rd Ed).* United States: Heinle & Heinle.

Crystal, D. (1997). *English as a global language.* Cambridge: Cambridge University Press.

Kenning, M. J., & Kenning, M. M. (1990).*Computer and language learning: Current theory and practice*. New York: Ellis Horwood Limited.

Leflore, D. (2000). Theory supporting design guidelines for web-based instruction. In B. Abbey (Ed.), *Instructional and cognitive impacts of web-based education* (pp. 102–117). Idea Group Publishing.

Muffoletto, R., & Knupfer, N. (1993).*Computers in education: Social, political, historical perspectives.* New Jersey: Hampton Press.

Scarcella, R. & Oxford, R. (1992). *The Tapestry of Language Learning*: The Individual in the Communicative Classroom. Boston: Heinle & Heinle.

Vandergrift, L. (1997). The comprehension strategies of second language (French) listeners: A descriptive study. *Foreign Language Annals, 30*(3), 387-409.

Vandergrift, L. (2004).   Learning to listen or listening to learn. *Annual Review of Applied Linguistics*, *24*(1), 3-25.

Oliva, M. & Pollastrini, Y. (1995). Internet resources and second language acquisition: An evaluation of virtual immersion. *Foreign Language Annals, 995(28),* 55-63.