



Hypermedia in an EFL Context: The Impact on Speaking and Motivation

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Abstract

With the advent of computer technology and educational software, hypermedia language learning materials made their way in foreign and second language classrooms. Today the role of hypermedia in improving communication skills is by no means deniable. This research aimed at investigating the effect of hypermedia on the oral performance as well as the motivation of Iranian EFL Learners. A pretest-posttest control group design was used. Two classes of female students aged 17-25 from Poya-Simin Language Institute, Qa'emshahr branch, were randomly selected. Next, in order to assure the homogeneity of the participants in terms of proficiency, the Oxford Placement Test (OPT), with reasonable measures of validity and reliability, was used to screen the participants. The comparison of the two groups on the speaking pretest confirmed the homogeneity of the participants before the instruction. Afterward, the experimental group was offered the educational software, Rosetta Stone. After 20 sessions both groups were reexamined by the speaking posttest to investigate the effectiveness of the software on users' oral performance. The results of the oral test and the motivation questionnaire indicated that the participants in the experimental group made great progress in speaking and hypermedia improved their motivation towards learning English.

Keywords: educational software, hypermedia, multimedia, speaking skill.

INTRODUCTION

The educational technology has various meanings such as electronic learning, computer-assisted learning (CAL), computer-based instruction (CBI), and information and communication technology (ICT). As Roblyer and Edward (2000) maintain technology is the combination of processes and tools involved in addressing educational needs and problems, and it focuses on applying some tools such as computers and their related technologies. As Maftoon, Hamidi and Sarem (2012) argue, technology can

bring about motivation in language classrooms.

In contrast to traditional language lab, hypermedia lab has the function of video on demand and of course, the function of a hypermedia lab is multiple. Brinton and Holten (1997) argue that media help us to motivate students by making a social and communication context and by bringing a part of real life into the classroom. Media can provide rich cultural input and widespread information. Many multimedia experts (e.g., Brett, 2000; Thornburg, 1997) believe that multimedia increases students' motivation to learn language better. By using material on hypermedia or even web-based resources, language classes

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become more dynamic or attention-grabbing. These kinds of classes can then move the center of interest from teacher to learner (Iacob, 2009).

The use of computer assisted language learning (CALL) in classrooms is by no means deniable and it should be encouraged at all levels of instruction in today's education (Montazeri & Hamidi, 2013). Keobke (1998) believes that when CALL programs are geared to students' learning styles, which is not always possible in traditional classrooms, facilitate their learning process. Traditional methods emphasize the teacher's role as transmitter of knowledge and students were seen as passive recipients of this knowledge. But in communicative method of language teaching, the focus shifts from teacher to learner (Jayachandran, 2007).

Second language learners can practice their language skills by technology which provides authentic and global materials. Ngeow (1999) declares that computer has several roles in helping language teachers address learning styles and strategy development. She believes that CALL applications support authentic language learning and help students to present ideas in new ways.

Bourdon (1999) asserts that computer technology and CALL help ESOL (English for speakers of other language) students in speaking, listening, reading and writing. One of the most important reasons for using the computer is its unique ability to deliver materials that meet the needs of the individual learner (Garrett, 1988). Countries such as China, France, Malaysia, Korea, Myanmar, and Turkey are using an English language teaching computer program named DynED (Dynamic Education).

There are some advantages and disadvantages for using computer technology in English classes. Kataoka (2000) found that second and foreign language learners feel more comfortable practicing pronunciation without feeling embarrassed by their errors. In other words, multimedia makes practice more effective and efficient. There are some advantages of language learning on websites, for example, learners are able to learn language in their spare time

and learners are free to choose the level and exercise types and learners do not lose face when they make mistakes, in other words, it provides privacy (Wu *et al.*, 2006).

CALL first started in the 1970's in the USA. Since then, computers have become prevalent machine. There are some advantages of computer-assisted language learning (CALL) enumerated by Calvo (1997) as follows: "(a) Computers can cope with the real needs of individual, (b) they increase motivation, mainly in non self-motivated students, (c). computers are more and more familiar everyday even for young students and contribute to break the walls between the classroom and the outside world" (p. 130).

In addition, Blin (1999) maintains that CALL allows learners to work their own pace, to have the freedom to choose their own materials and their own pedagogical path. The other advantages of CALL programs can be mentioned like learners are more independent to learn materials by their own pace and using CALL software has lower cost than face-to-face classroom teaching. Lee (2000) also asserts that computer technology enhances students' achievement, increases authentic material for study, motivates students, enlarges global understanding, and emphasizes individual needs. Moreover, Tylor (1980) declares that multimedia provides a lot of fun game, reduces the learning stresses and anxieties and provides repeated lessons as often as necessary.

In contrast, some disadvantages of CALL programs have been discussed. For example, Gips *et al.* (2004) maintain that when computer and its attached language learning become necessary in these kinds of classes, the low-income-students and low budget schools cannot afford it. In addition, it is necessary for both teachers and students to have basic technology knowledge before applying computer technology. Most of CALL software focuses on reading, writing, and listening. Although some new speaking programs have been developed, their functions are still limited! Computer's artificial intelligence is unable to respond to students'

unexpected problems.

According to cognitive or constructivist view of language, language is mentally structured. It encourages the teaching of the usage of structures and forms and not just the structure or form by itself. Good English speaking skills are required in every aspect of our lives. We all know that English is the language that unifies the world. The purpose of any language is for communication. In other words, speaking is the most common mode of communication. For the effective speaking, one has to practice the art of speaking. Listening and thinking, the previous steps, prepares a person to speak and speaking alone gives fluency in the language. So speaking is also equally important.

Szepiela (2003) asserts that communicative language teaching (CLT) is an approach to learn a foreign language communicatively. CLT focuses on communication rather than language form. Now people believe that learning a language to communicate is more important than learning about the language (Yeonhwan, 2006). The categories and the contents of the TOEFL test, one of the most popular and reliable English tests for foreigners, have been changed by making an effort to test more communicative ability than before. Testing grammar is no longer part of the test and testing speaking ability has been added to the test. Also, testing each section of listening, speaking, reading, and writing separately has been replaced by more integrated tests of all skills. Now, the new test seems to focus more on evaluating the communicative ability. CLT is one approach for teaching foreign languages through which the students learn how to communicate effectively (Szepiela, 2003).

English is considered as a foreign language in Iran, so communicating in English in the society seems to some extent impossible. However, the majority of English learners lose the opportunity to communicate in real everyday situations as native speakers use their language. It makes many students lose their interest in English even though they have a good understand-

ing of English grammar. So it is hopeful that second/foreign language teaching today does not only focus on massive memorization of vocabulary and grammar rules, and people believe learning a language to communicate is more important than learning about the language. According to educational experts and linguists, learning English in Iranian schools is just wasting time! There are several issues in the process of English learning in Iranian schools such as lack of using educational instruments, lack of attention to upgrade speaking skill, using traditional teaching method and so on. As a result, motivated students who really want to learn English attend language training institutes.

Nowadays no one can ignore technology's role which has impacted education and society. Children and youth use the Internet to learn and communicate with friends; they use e-mail, web logs, and social hubs to share their thoughts. Technological innovation in education penetrates schools and institutes as learners and instructors use multimedia, personal computers, the Internet, and video projection in classes.

Learning a new language is a complex process, you have to focus on reading, writing, speaking and listening. When you learn English through multimedia, you are able to choose media that allow you to focus on different aspects of language. The best part is that you can use these methods in a classroom setting or at home by yourself. You can truly design a multimedia English learning program that fits your needs.

Multimedia program learners become familiar with signs to give meaning to their environment. Signs include not only gestures, facial expressions, body movements, verbal and non-verbal sounds, but also cultural artifacts such as traffic noise and folk music, pictures and billboards, and landscapes and city maps. When learners go abroad and try to interact with the members of the host culture, as Hanks (1996) argues, all these signs are there, live, to be distinguished and decoded.

In a video or multimedia program, however, they are inevitably filtered through the film-

maker, the camera, and its lens, in other words, through the semiotic system of the video itself. Interpreting that semiotic system means understanding as much as possible why certain events might have been selected, others ignored, why certain people were focused on, others left in the background, and so forth. What students need to understand then, when learning the linguistic system through "authentic" video, is the way language interacts with other sign systems, including those of the medium that represents them (Kress & van Leeuwen, 1996). Using multimedia transforms our task from teaching language as a formal system to teaching language as what Hanks (1996) calls "communicative practice", that is, a social activity that reflects and reproduces a speech community's stock of values and beliefs.

There is no doubt that multimedia software or hardware has a meaningful role in comprehensible input in learning a language. Lee and VanPatten (1995) illustrate the role of the input that is easy to understand as input to language acquisition is what gas is to a car. An engine needs gas to run; likewise, input in language learning is what gets the "engine" of acquisition going. Without it, acquisition simply does not happen. They continued to explain; you simply cannot put crude oil into your gas tank and expect the car to run. And because gas is a refined petroleum product, some is better than others; likewise, some input is better than others.

The input is not only learning a language but learning how to communicate (Yeonhwan, 2006). According to him, language is an abstract system in the mental domain; communication occurs in the physical domain, input should consist of speech and other information, such as who is involved, when and where the interaction takes place, nonverbal communication like facial expressions and gestures, and the presence of other objects, to make learning actually happen. In order to make input comprehensible, input should be provided to learners in terms of showing meanings of communicative behaviors (including speech), not explaining the meanings of

words or sentences. Since explanations often only contain "language", it is not comprehensible at all unless learners already know it. Also, meaning does not reside in words or utterances, but lies in people who perceive it in the linkage (Yngve, 1996).

As the goal of foreign language teaching is to create a communicative environment in which learners express themselves in the target language. Hypermedia, as argued by Abdolmanafi-Rokni, Montazeri, and Karimi (2014), is of great advantage in that it helps learner put themselves in a native-like situation and makes the communicative environment better than learning just by textbooks. This paper offers suggestions on improving speaking skill through hypermedia and indicates how hypermedia makes students work better through tests. In addition, students with high communication skills have more chance to improve their speaking.

In the mid 1960s three new technological aids came into general use in the classroom – language laboratory, portable tape-recorder and film strip projector. All these were greeted with euphoria in all modern language departments. Extensive use of tapes and equipment was revolutionary for language teachers. The potential offered to language teaching by tape-recorder was enormous – now possible to bring native speaking voices into the classroom. Editing and self-recording facilities were now available (Mirhassani, 2003).

Multimedia has allowed educators to learn language with different ages, genders, and educational backgrounds. Multimedia increases and enriches the scope and quality of education at all levels. The literature review show some cases in some pertinent research which corroborates the impact multimedia technology has had in education. The idea of hypermedia, a distinct feature of multimedia, comes about by the merging of two distinct fields: one is the field of multimedia and the other is the field of hypertext. Using terms like multimedia, interactive video, hypermedia and hypertext are often synonymous in much of the literature (Burton et al., 1995).

Computers have been surprisingly used in education for a long time. The first Computer Assisted Learning (CAL) program was developed in 1954. With technical advances in personal computer design in the 1980s, it became more practical to develop CAL programs and to use technology in the classroom. By 1985, 80% of secondary schools and 95% of primary schools had some level of computing instruction in use (Shelbourn et al., 2001). Multimedia may also provide students and educators access to previously inaccessible materials, such as historical films, rare sound recordings of famous speeches, illustrations from difficult to obtain periodicals, and many more (Galbreath, 1992). Hypermedia makes student re-active. Researcher wants to find out that computer software programs improve student's pronunciation or increase their motivation to learn English.

Nowadays teachers attempt to socialize learners through online communication in their classroom (Kern et al., 2004). Several studies (e.g., Kern, 1995; Sullivan & Pratt, 1996) quantitatively compared the amount of teacher and student participation in computer-mediated-discourse with that in traditional face-to-face classroom discourse. Their findings indicated the balanced participation among students, and students often have more participation than teachers in computer-mediated discourse rather than traditional teacher-centered classroom.

As engineers spend much of their time communicating, they understand the importance of communication in their jobs. Thus their supervisors comment that more needs to be done in the college to prepare students for communication tasks in the workplace. For enhancing engineering students' communication Skills, hypertext-based, multimedia courseware can be used in traditionally structured engineering courses (Palmquist et al., 1995).

Research Questions

To fulfill the purpose of the study, the following research questions were formulated:

1. Does using hypermedia have any signifi-

cant effect on oral performance of Iranian intermediate EFL learners?

2. Does using hypermedia have any effect on the promotion of Iranian EFL intermediate learners' motivation?

Methodology

Research Design

The present study was conducted to investigate the potential effect of using hypermedia on Iranian intermediate EFL learners' oral performance. The design of study is quasi-experimental with a between-groups design in order to probe into the research questions. The independent variable is hypermedia learning. The dependent variable is learners' speaking ability.

Participants

In order to conduct the research study, the researchers randomly selected 42 female students from two classrooms at Poya-Simin Language Institute, Qa'emshahr branch, Iran. The participants were at intermediate level determined by an OPT. Their mother tongue was Persian and their age ranged from 17 to 25 with the average age of 16.5. All of them were non-native speakers of English who were studying English as foreign language. The two classes were randomly assigned to two groups, namely the experimental group and the control one.

Instrumentation

Proficiency Test

At the beginning of the study to determine the language proficiency of the learners, they were given an Oxford Placement Test (OPT). The test was assumed to test the learners' proficiency in English. The placement test showed the reliability of 0.74 through the KR-21 method.

IELTS Speaking Test of Iravani

In order to measure the participants' speaking ability before and after the treatment, the speaking test of IELTS from Iravani's (2014) book was used. The book consists of three different parts, similar to that of real IELTS exam for the speaking section.

Motivational Questionnaire

The motivation questionnaire of Clément, Dörnyei and Noels (1994) was used in order to rate the motivation level of the participants (appendix B).

Rosetta Stone Software

The material used in this study was Rosetta Stone software. It was designed for intermediate level learners to which the participants in the experimental group were exposed for 20 sessions. The Rosetta Stone software uses real-life images to connect meanings to new language and provide interactive and life-like conversations, making it very practical for learners' use in daily life.

Treatment

Learners in experimental group were required to practice with Rosetta Stone American English at level 3, version 3 copyright 2007 Rosetta Stone Ltd, three hours a week for a month in the spring term. Four chapters were taught. Chapter one was about home and health, chapter two was about life and world, chapter three was about everyday thing, and chapter four was about places and events. In each chapter learners learned correct pronunciation and examined their own native culture, new grammar, vocabulary; at the end of each chapter learners assess themselves with exercises.

Procedure

This study was a quasi-experimental one. The participants from two classes were randomly selected and assigned to two groups. To begin with, learners in the two groups were homogenized by OPT test. To ensure that the two groups were homogeneous in terms of the speaking ability, the scores of the speaking test were used as the pretest. The participants' speaking performance on all parts of the pretest was recorded and subsequently rated by two raters. The instructional intervention consisted of 20 sessions of 30 minutes. At the end of the instruction period, the speaking posttest was administered to both groups to track any possible improvement in their speaking ability and in the grammatical uptakes with respect to the kind of

correction they received throughout the treatment period. Moreover, in order to find out whether using hypermedia would have a significant effect on increasing motivation, the motivation questionnaire was administered twice to the participants in the experimental group, once before the treatment and the other after.

Data Analysis

In order to find out the effectiveness of hypermedia on learners' oral production, paired-samples t-test was utilized. Statistical Package for Social Sciences (SPSS) software, version 18, was used for the data analysis. Moreover, to compare the two groups, an independent samples t-test was run. Furthermore, to make sure whether scoring procedure was reliable enough to be coded, two researchers scored the data to establish inter-rater reliability. A correlation coefficient of .72 was found between the two raters, which indicated the reliability of the scoring procedure.

Results

After the collection of all the data, the SPSS software version 18 was used and the principles of descriptive statistics were applied in order to identify and describe the data. The measures of mean and standard deviation were calculated. Inferential statistics were also applied to test the proposed hypotheses.

Step 1: Reliability of the OPT

Table 1 below shows the reliability of the OPT used as the homogeneity test. The reliability index is 0.74 which is statistically strong.

Table 1:
Reliability of the OPT Used as the Homogeneity Test

N	KR-21 Reliability
42	0.74

Step 2: Oral Proficiency Test

The researchers used the questions in the speaking test (appendix A) in order to find out whether the participants were at the same level of oral proficiency or not.

Table 2:
Rank Table for the two Oral Scores

Ranks				
	G-1,2	N	Mean Rank	Sum of Ranks
Cont Ex- poral Test	1.00	21	22.31	468.50
	2.00	21	20.69	434.50
	Total	42		

Table 3:
Result of the Mann-Witney U Test

Test Statistics ^a	
	ContExpOralTest
Mann-Whitney U	203.500
Wilcoxon W	434.500
Z	-.434
Asymp. Sig. (2-tailed)	.664

a. Grouping Variable: G12

From the data presented above, it can be concluded that the difference between the two groups was not statistically significant ($U = 203.50$, $p = .664$) in pretest. Therefore, the two groups were homogeneous in terms of their oral proficiency.

Step 3: Inter-Rater Reliability

Table 4 below shows the inter-rater reliability result for the two raters. As it can be seen, $r = 0.858$, $p < 0.05$. It shows that there is a significant agreement between the two raters who rated the students' performances on the oral test.

Table 4:
Inter-Rater Reliability Result for the Two Raters

Correlations				
		Rater 1	Rater 2	
Spear man's rho	Rater1	Correlation Coefficient	1.000	.858**
		Sig. (2-tailed)	.	.000
		N	21	21
	Rater 2	Correlation Coefficient	.858**	1.000
		Sig. (2-tailed)	.000	.
		N	21	21

** . Correlation is significant at the 0.01 level (2-tailed).

Step 4: Pretest posttest comparison of speaking for the control group

As to the comparison of pretest and posttest for the control group, table 5 shows the result.

Table 5:
Result of the Wilcoxon Signed-Rank Test for the Control Group
Test Statistics^b

	Iravani Post Con
	Iravani Pre Con
Z	-1.633 ^a
Asymp. Sig. (2-tailed)	.102

a. Based on negative ranks.
b. Wilcoxon Signed Ranks Test

The Wilcoxon signed-rank test showed that there was not a significant difference between the pretest and posttest of speaking test for the control group ($Z = -1.633$, $p = 0.102$).

Step 5: Pretest posttest comparison of speaking for the experimental group

Table 6:
Result of the Wilcoxon Signed-Rank test for the Experimental Group
Test Statistics^b

	IravaniPostEXP -
	IravaniPreEXP
Z	-3.473 ^a
Asymp. Sig. (2-tailed)	.001

a. Based on negative ranks.
b. Wilcoxon Signed Ranks Test

The Wilcoxon signed-rank test showed that there was a statistically significant difference between the pretest and posttest of speaking test for the experimental group ($Z = -3.473$, $p = 0.001 < 0.05$). Therefore, it can be concluded that the treatment of exposing the participants to the Rosetta Stone DVDs was successful in improving the participants' speaking ability.

Step 6: Posttest comparison of speaking test for the control and the experimental groups

Table 7:
Result of the Mann-Witney U Test for the Control and the Experimental Groups

Test Statistics ^a	
	VAR00004
Mann-Whitney U	137.500
Wilcoxon W	368.500
Z	-2.122
Asymp. Sig. (2-tailed)	.034

a. Grouping Variable: G12

Based on table 7 above, it can be concluded that the speaking test score of the experimental group was statistically significantly higher than the control group ($U = 137.50$, $p = .034$, $p < 0.05$). Therefore, it is proved that using the Rosetta Stone software had a significant effect on the improvement of the speaking ability of the participants.

Step 7: Posttest comparison of the motivation questionnaire attempted by the control and the experimental groups

The motivation questionnaire of Clément, Dörnyei and Noels (1994) was used in order to rate the motivation level of the participants. The result of the Mann-Witney U test between the posttest of the two groups is as follows:

Table 8:
Result of the Mann-Witney U test between the Posttest of the Control and the Experimental Group

Test Statistics ^a	
	VAR00003
Mann-Whitney U	169.000
Wilcoxon W	400.000
Z	-1.309
Asymp. Sig. (2-tailed)	.019

a. Grouping Variable: G12

The result of the Mann-Witney U test between the posttest of the control and the experimental group is presented in table 8 above. As it

can be seen, $U = 169.50$ and $p = .019$, $p < 0.05$. Therefore, it can be concluded that the motivation level of the experimental group was statistically significantly higher than that of the control group. Consequently, the use of Rosetta Stone software proved to have a significant effect on the improvement of the speaking ability of the participants.

Discussion

The result of the study showed that the participants in the experimental group performed significantly better than the ones in the control group who did not use the Rosetta Stone software. Using hypermedia also promoted the motivation of the learners in the experimental group. When Rosetta Stone software was introduced to the students in experimental group, it was noticed that the students were encouraged as they were actively involved in the speaking activities. In an earlier experimental study by Abdolmani-Rokni et al. (2014), positive effects of hypermedia on listening skill of Iranian EFL learners were reported. This paper also proclaimed that hypermedia instrument had an impact on speaking skill of Iranian EFL Learners, meanwhile learners educated by hypermedia showed more motivation for learning English.

Lee (2004) conducted a study with learners of Spanish at the intermediate level and native speakers of Spanish during one semester. The researcher demonstrated that students thought that online collaboration between nonnative speakers and native speakers encouraged them to use vocabulary and grammar structures during the communication process. In addition, network-based collaborative projects offered important opportunities to practice and enhance students' language skills.

Likewise, Osuna, and Meskill (1998) also found that using the web in class is more interesting and learners are eager to spend more time on the task. The researchers observed that multimedia has an important role to keep learners motivated on the task, and it helps them in their understanding of various topics. Moreover, Kocak

(1997) investigated the effects of Computer Assisted Language Learning on vocabulary instruction for Turkish EFL students. In his research, students who were educated by CALL had higher achievement levels on English vocabulary than those who learned using traditional language teaching methods.

According to Pinkman (2005), the findings do reveal some salient points for foreign language instructors interested in considering the use of blog projects to encourage out-of-class learning. Further, Galloway (2007) concluded that well designed and used multimedia can assist language instructors to bring learners together so that they can improve their L2 speaking skills. Multimedia also allows activities that encourage socialization and communication to take place. Equally, Gorghiu et al. (2005) found that teachers thought the WebQuest increases students' motivation and cooperative work. Students immersed in the design of a WebQuest activity in different areas were motivated and engaged in the activity because of the role playing and group work they had to develop.

The findings demonstrated that hypermedia help to achieve successful results in improving speaking skill as well as increasing motivation. Also, as all the learners were interviewed in the experimental group, they all said that it was really motivating and encouraging. In addition, the difference of answers of learners in experimental group between pre and post attitudinal questions indicated that using hypermedia in language learning is serious stimulus for enhancing learners' motivation.

Conclusion

This paper investigated the effect of hypermedia by the use of educational software, Rosetta Stone on the speaking skill and motivation of Iranian EFL learners. The use of hypermedia in speaking affected test takers' scores. It resulted in the improvement of their speaking as well as their communication skills. Students' perception of the use of hypermedia coincided with their performance on motivation questionnaire and the

IELTS speaking skill posttest.

Judging from merits and demerits of computer assisted learning and teaching for current foreign language learning, we can find it necessary to apply computers in current second and foreign language classroom, although it still has demerits and weaknesses. As Jayachandran (2007) has stated, in teaching languages in any aspect such as vocabulary, grammar, composition, pronunciation, or other linguistic and pragmatic-communicative skills computers make perfect teaching tools. Computer technology can improve learner autonomy and might change the learning strategies on the part of learners (Hamidi, Montazeri, Razavi, & Azizinejad, 2014).

The advantages of computer in improving language acquisition are greater than its limitations. The result of this paper indicated that hypermedia can be useful in language learning process. It can be able to increase language skills such as speaking skill as well as learners' attitude and motivation by attractive learning style. The authors of this paper have discussed the merits of computer technology throughout this paper; however, they believe that there is still this chicken-and-egg problem, i.e. whether computer technology should be used to learn new languages or do we learn new languages to be able to use computer technology?

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