



# The Impact of Hypermedia on EFL Learners' Oral Performance

Mohsen Jorjani<sup>1</sup> and Seyed Jalal Abdolmanafi-Rokni<sup>2\*</sup>

<sup>1</sup>Department of English Language Teaching, Gorgan Branch, Islamic Azad University, Gorgan, Iran & Department of English Language Teaching, Science and Research Branch, Islamic Azad University, Gorgan, Iran

<sup>2</sup>Department of English Language and Literature, Golestan University, Gorgan, Iran

\*E-mail: j.abdolmanafi@gmail.com

## ABSTRACT

The aim of this research was to investigate the effect of hypermedia as a delivery tool on improving EFL students' speaking skill. The speaking improvement of students exposed to multimedia English lessons was compared with the speaking improvement of students not exposed to multimedia lessons. A total of thirty two students from two classes sharing a similar social and educational background approved by a background questionnaire and a language proficiency test participated in the study. Then sixteen students in each class at the pre-intermediate level of proficiency were randomly assigned into either experimental or control group. Next, the two classes were administered a speaking test. For a period of six weeks in twelve sessions the educational software *Rosetta Stone* was offered to the experimental group. After twelve sessions both groups were reexamined through a speaking test to examine the impact of software on users' functions and its effect on the speaking ability of the participants in the experimental group. The findings showed a significant increase in the learning outcomes of experimental group from pretest to posttest in which their scores were significantly higher than those of the control group.

**Key words:** Rosetta Stone; Hypermedia; Speaking skill; EFL learners

## INTRODUCTION

Richards and Renandya (2002) maintain that speaking is one of the main parts of communication. In EFL teaching, it is a skill that needs specific attention and instruction. In order to provide efficient instruction, it is essential for EFL teachers to carefully scrutinize the elements, conditions, and factors that supply speaking competence. Effective teaching obtained from the careful analysis of this area, together with adequate language input and speech-promotion activities will progressively help learners to speak English fluently and properly.

Further, Burns and Joyce (1997) stipulate that speaking is an interactive process of constructing meaning that includes producing, receiving and processing information. Speaking is a crucial part of second language learning and teaching. Despite its importance, teaching speaking has not been valued for a few years and English language teachers have continued to teach speaking just as a repetition of drills or memorization of dialogues. However, in today's world the goal of teaching speaking should improve students' communicative skills, because just in that way students can state themselves and learn how to follow the social and appropriate cultural rules in each communicative circumstance; therefore, recent pedagogical research on teaching students conversations has provided some parameters for developing objectives and techniques. As Chastain (1988) maintains, speaking a language includes more than clearly comprehending the linguistic parts of the message, and improving language skills needs more than grammatical comprehension and vocabulary memorization. Instructors and learners come to language classes with conscious or subconscious attitudes, expectations, needs, and interests. These are particularly germane to establishing course objectives for speaking, which has tended to receive the greatest attention and emphasis in recent years and for which achievement has inclined to be the most disappointing, possibly because expectations have been raised beyond realistic levels.

Second language instruction has remained generally unaltered for several centuries. The common mode of learning was rote memorization, repetition, and recitation (Brown, 2007). Erben and Sarive (2008) hold that in traditional classrooms students were asked to repeat and memorize information to make learning occur. Few research studies have been directed in second language methodology, and the field was moderate to move into scientific examination (Brown, 2007). At the beginning of 20<sup>th</sup> century, another method of instruction came of age (Richards & Rodgers, 2001) on the basis of Skinner's (1957) behaviorist theory. It was imagined that if learners were given corrective feedback, or positive prizes, they would repeat patterns that were reinforced (VanPatten & Williams, 2007). Mitchell and Myles (2004) express that repeated reinforcement makes the same response, which will become a habit. If they got negative feedback, or no feedback at all, they would not reiterate the models (VanPatten & Williams, 2007). Mitchell and Myles (2004) express that if the reinforcement

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breaks down or does not exist, the student will not repeat the model. A lot of second language classrooms still work today under the behaviorist approaches that were so prevalent in the first part of the 20<sup>th</sup> century (Saville-Troike, 2006).

At the end of 20<sup>th</sup> century, second language research reached puberty (VanPatten & Williams, 2007). Instructors began to show that behaviorist approaches had constraints on second language acquisition (VanPatten & Williams, 2007). "Sheer imitation, dictation of steps to be taken, and mechanical drill may produce results most rapidly and yet strengthen characteristics likely to be deadly to reflective power" (Dewey, 1910, p. 51). With the integration of technology, it is possible for second language instructors to move from a behavioral to a more efficient constructivist approach to learning second language, helping learners to understand, apply, and remember concepts (Pitler et al., 2007). Judson (2006) confirms that educators who adopt technology in their instruction show constructivist teaching styles.

Second language teachers have been reluctant to execute the utilization of computers in their instruction for different reasons. Some educators follow the adopted textbook of their district, which indicates a behaviorist approach to learning (Mitchell & Myles, 2004). According to Heinich et al. (2002), textbooks have been the establishment of classroom instruction. These instructors may not have sufficient training in computer applications. This makes them uncomfortable in utilizing technology as a part of their instructional collection (Heinich et al., 2002). Zhao & Cziko (2001) maintain that the absence of instructor involvement in the utilization of technology is focused around the absence of training that will supply technological skills that could lead to technology integration. Outdated and behaviorist approaches are the solely methods that some teachers were taught in their undergraduate coursework. Hartnell-Young (2006) stipulates that new teachers need to concentrate on designing technological learning environments in order to enhance their practice. Some of them believe that permitting their learners to practice with computers might be considered fun and a waste of instructional time. Erben & Sarieva (2008, p.13) express that educators often view technology as a "fun Friday afternoon" activity.

Technology can be the bridge between the behaviorist instruction of the past and the new instructional methods lately developed. Technology in second language classroom has become the new tool of communication and requires to be seen as a process on what to teach, how to teach, and how learners can learn most efficiently (Stone et al., 2005). Second language teachers who become instructed in the profits of using technology as a valid and efficient teaching tool will find that it increases learner's understanding.

It remains to be investigated if the utilization of technology will have an effect on teaching speaking in the foreign language classroom. Zimmerman (1997) and Nation (1990) express that teaching and learning speaking has been undervalued in the field of second language acquisition (SLA) during its varying stages and up to the present day. This study examined the effect of hypermedia on achievement of learners who were given the opportunity to utilize technology in the process of acquiring the language. This study merits attention and further consideration since it may influence the methods utilized by teachers to improve second language acquisition in the classroom setting. Roblyer (2006) stipulates: "Educators recognize and use multimedia/hypermedia technology when they see the powerful capabilities they offer to enhance classroom learning by the increase of motivation, flexible learning modes, the development of creative and critical thinking skills and to improved writing and process skills" (p.188).

According to Mayer (2009), multimedia instruction (combining video, sound, words, and pictures together) would support meaningful learning as well as enable learners to understand the materials better. In support of the cognitive theory of multimedia, Mayer (2001, p. 47) asserts, "People learn more deeply from words and pictures than from words alone."

Researchers have investigated the profits of utilizing multimedia in education. Vaughan (2004) expresses that schools are the most required destination for multimedia and will incite radical changes in the teaching process during the coming decades, especially when learners find they can go beyond the limits of traditional teaching methods. This change in the teaching process depicts a move away from the passive-learner model of learning to the active-learner model, integrating students themselves in the learning process.

There are other researchers who have been focusing their efforts on the study of multimedia as an important tool for teaching. Ayres & Melear (1998) directed a study to determine if the utilization of an interactive multimedia is more efficient than a traditional face-to-face environment in an extracurricular lesson. The students were exposed to a quiz before and after the exhibit. The researcher showed that informal learning setting is a mechanism that improves students' learning by connecting the learning concepts acquired from classroom activities and books to the real world. The results in their study showed that there was an important difference in the improvement scores when learners interact with a multimedia exhibit compared to a traditional exhibit. Learners were more engaged when interacting with a multimedia exhibit. When learners interacted with the illustrations, animations, and sounds, they expressed excitement and curiosity. They likewise expressed that multimedia made an environment more conducive for learning concepts, through a variety of text, visuals,

sounds, and interactive modes to accommodate different vocabularies, knowledge, levels of interest, and learning styles.

The aim of this study was to determine whether or not the use of multimedia in an English course accommodates achievement and attitude among students at a pre-intermediate level in Gorgan. The aim of this mixed method study was to identify, describe, and compare any relational differences in achievement and attitude changes that take place among students using multimedia/hypermedia as an instructional delivery tool with those learners who take part in traditional methods classroom environment. The researcher used *Rosetta Stone* software, providing students the opportunity to improve and enhance their oral performance.

### **Research Questions**

1. Does using hypermedia enhance speaking ability of Iranian pre-intermediate students?
2. What are Iranian pre-intermediate learners' perceptions of using hypermedia for improving speaking skill?

## **METHODOLOGY**

### **Participants**

For the purpose of conducting this research, thirty two students from two classes in Bayab Institute were randomly divided into two groups, namely as the experimental group and control group (each 16). All of the participants were studying English at Bayan Institute in Gorgan, Iran. They were at pre-intermediate level determined by a proficiency test. The participants included female students only. Their age range varied from 15 to 20. The native language of all the participants was Persian. After the selection of the participants, the English language proficiency, Oxford Test was administered to the participants of the study. The purpose of the administration of this test was to ensure the homogeneity of the students in terms of general language proficiency prior to the treatment.

### **Instrumentation**

*Background Questionnaire:* In order to elicit subjective information of participants, a background questionnaire was developed by the researchers. It covered issues such as the participants' age, gender, and first language status.

*Proficiency Test:* In order to be assured of the homogeneity of the control and experimental groups in terms of English language proficiency, Oxford Test was given to the students. It included grammar and structure as well as reading comprehension section so that students can be scaled in a continuum, arranged by their proficiency level. It proved to have a reliability of 0.79. It consisted of 40 multiple-choice items. The time allotted was 60 minutes.

### **Speaking Test**

The other test that was used in the process of the research was the speaking test. The participants in both experimental and control groups took a pre and post speaking test which consisted of six items. The participants finished the test in 15 minutes. The items of the test were chosen from the achievement tests provided by the researchers. The items chosen were based on the contents of level three of *Rosetta Stone* software which included speaking skill. As a triangulation procedure, the content validity of the selected items was approved by three colleagues involved in teaching English as a foreign language at the same institute. All of them maintained that the test covered the contents of the mentioned lessons and was both representative and comprehensive. In order to estimate the reliability of the test, it was administered to a group of 10 EFL students who were studying English at the same level at same institute where the same lessons were being taught. The reliability of the test was estimated through Cronbach's alpha was 0.82, which is highly reliable.

### **Interview**

Another instrument used in this study was semi-structured interview which were asked to answer at the end of using hypermedia software. The interview questions consisted of four open-ended items. The amount of time required to respond to the open-ended items was approximately 15 to 20 minutes. The open-ended items were intended to elicit the participants' opinions regarding the hypermedia software and how it could improve the students' oral performance in the experimental group. In effective communication, "a question must be understood by the respondent in the way the researchers intended, and the answer must be understood by the researchers in the way the respondents intended" (Foddy, 1993, p.24).

### **Rosetta Stone Software**

The hypermedia software utilized in this research was *Rosetta Stone*, which is one of the most popular computer-based instructional software. It has the characteristics of having an interactive interface which benefits the students by allowing them to get extra information about the subject or the unknown word simply by clicking it. Another feature of this software is the capability of being easily adapted to the needs of the user. Therefore, it can be used particularly to support the speaking skill. It also uses the immersion technique that does not allow using any sort of translation at any level of the teaching. Moreover, the lessons that are presented in the *Rosetta Stone* are divided into five parts. This feature helped the students find the exact level of the lesson based on their capabilities.

### Treatment

In order to carry out the research, the students were required to practice English with the help of the software in the classroom and their homes. Their practice sessions were about 45 minutes in the classroom and half an hour each day at home. The treatment lasted six weeks in 12 sessions. They were asked not to use the dictionary but the interface of the hypermedia that gives the extra needed information. They could access the information simply by clicking the words or paying attention to the pictures that help the students get the context. For the control group, the same teaching material was used as that of experimental group. Actually hypermedia program was not administered to the control group.

### Procedure

At the beginning of the study, two classes were selected. Then, they were assigned into two groups. One of the classes was randomly selected as control group and the other served as the experimental group of the study. The study was carried out in the academic year 2014. In the first step, students were administered the background questionnaire along with the proficiency test in order to determine their overall level of English proficiency. Both groups in the present study were at pre-intermediate level determined by the proficiency test that corresponded to the level three of the software. In the second step, their speaking proficiency was evaluated in order to determine their speaking proficiency before practicing with the hypermedia. After the speaking proficiency test they were required to work with the software. In the second step their speaking proficiency level was evaluated again in order to determine the impact of working with the hypermedia. The participants' performances on the speaking test were transcribed by two raters based on the scoring rubric and actual scoring sheets of the oral test for the later analysis.

The final step was to do an interview with experimental group at the end of using *Rosetta Stone* software. The interview questions consisted of four open-ended items. The amount of time required to respond to the open-ended items was approximately 15 to 20 minutes. The open-ended items were intended to elicit the participants' opinions regarding the *Rosetta Stone* software and how it could improve the students' speaking skill. The designed semi-structured interview pertaining to the objectives of this research with the students were recorded and transcribed.

## RESULTS

Having collected the data through the tests, the researcher applied the t-test formula to measure the differences, if any, between the experimental group and the control group. It is important to note that the researcher employed all the formulas with the level of significance set at 0.05 in all their applications.

As revealed in Table 1, the computed significance is equal to 0.482 which is bigger than the significance level set for the study (0.05). This indicates that there was no statistically significant difference between the two groups in the pretest.

As displayed in Table 2, the computed significance equals 0.0001 which is smaller than the significance level set for the study (0.05). This substantiates the fact that there was a statistically significant difference between the experimental group and the control group in the posttest confirming the effect of hypermedia on improving the learners' speaking ability.

**Table 1.** Independent samples T test results of experimental and control groups for speaking test in pretest

Scope	Groups	N	Mean	SD	Std. Error Mean	Sig.
Pretest	Experimental	16	5.2778	1.62876	0.37716	0.482
	Control	16	5.3556	1.41343	0.33485	

**Table 2.** Independent samples T test results of experimental and control groups for speaking test in the posttest

Scope	Groups	N	Mean	SD	Std. Error Mean	Sig.
Posttest	Experimental	16	8.4318	1.64686	0.38608	0.0001
	Control	16	5.5556	1.41164	0.33550	

### The Findings from the Interview

The interviewees who participated in this research gave very special, clear and detailed answers for each question. The questions related to the characteristics and disadvantages of *Rosetta Stone*, the characteristics that assisted them most to improve English speaking, what improvement was needed to the software, comparisons between the real teacher and the software, opinions regarding the learning without correction feedback.

From the description of the characteristics of *Rosetta Stone*, it can be claimed that some students found this software acceptable. Six of 10 opinions said that it was helpful for them. It allowed them to listen, record and practice again and again. The arrangement of its learning processes, vocabulary and sentences for the text practice was suitable for pre-intermediate learners. The functions of playing, listening and recording were useful. The pictures illustrating meanings, real people's pronunciation and various practice drills as well as different and specific features were attractive to certain students.

In this research the students' English proficiency was at the pre-intermediate level. The characteristics that helped students most were playing and recording. Generally, they thought this software was satisfactory for learning speaking, but it had some disadvantages. The drills for practice or tests were useful for them. They also concentrated on the vocabulary and sentences practice instead of the whole text. They could listen and practice pronouncing English words again and again, and this feature was the most helpful. The disadvantages of this software and the improvements it needed were presented in the answers of the students. It did not have Persian translation and explanation of the vocabulary, sentences, text, and the operation icons; therefore, students thought it was not easy for students to use. They also would have liked to have the function which could allow them to choose to listen to one word or phrase, which they hoped to listen to again in the whole text reading. The speakers' speaking too fast was another problem for them, so they would have liked a function in this software which could have allowed them to slow down the speakers' speed.

The comparisons made between a teacher and the software showed some features which the real teacher had or did not have, and which could be compensated for by the software. The students could practice with the software any time and as long as they wanted, and the software could allow them to repeat as many times as they wanted. They were less shy when they faced the computer to speak English. However, they would have liked the software to be like the real teacher, who can listen to and answer their questions, know their problems, give them examples and explanations, and joke with them sometimes. Students expressed that teachers could not be with them all the time, teachers could be tired and angry sometimes, and they felt shy and nervous when they spoke to their teacher. These problems could be overcome by the software.

## DISCUSSION

The findings indicate a significant difference between the control and experimental group confirming the effect of hypermedia on improving the students' oral performance. It can be concluded that the use of hypermedia has a significant effect on improving the participants' oral performance.

The participants in the experimental group performed significantly better than the ones in the control group who did not use the *Rosetta Stone* software. When the *Rosetta Stone* software was introduced to the students in the experimental group, it was noticed that the students were encouraged as they were actively involved in the speaking activities. There are further confirmations for the results of the previous studies which concluded that the use of software, in particular, have significant effects on speaking skills. In addition, the activities used by the researcher in the suggested software helped the experimental group develop their speaking skill.

This study showed the improvement in the performance of the experimental group in the post-test, so the effectiveness of *Rosetta Stone* software in developing speaking skills of the pre-intermediate students is proved. The results of this research are in accordance with some previous studies (e.g., Abdolmanafi & Hamidi, 2015; Abdolmanafi et al., 2014; Ayres & Melear, 1998; Barzegar et al., 2013; BavaHarji et al., 2014; Chuang, 1999) which showed that the positive effects of hypermedia instruction are more than non-hypermedia instruction.

However, the results of this study are not in line with some previous studies (e.g., Yeh & Wang, 2003; Zarei & Gilanian, 2013) which displayed that there is no significant difference between the effects of hypermedia instruction and non-hypermedia instruction.

Student's comments reflected the general attitude of the students in the English class regarding the use of technology in the English classroom. Students are eager to learn and understand how to use multimedia to improve learning, increase productivity, and promote creativity (Green & Brown, 2002).

Multimedia was the strategy, in consensus by the participants, that was a tool that providing them with more beneficial instruments to enhance their speaking skills. From the description of the characteristics of multimedia, it was concluded that most of the students found this software acceptable and they had positive perception to using multimedia for improving speaking skill.

## CONCLUSION & PEDAGOGICAL IMPLICATIONS

This research was driven by the prompt that technology is an important part of education. Institutes are perhaps the neediest destination for multimedia. Instructors are required to be eager to accept multimedia, as they have seen their learners' excitement enhanced with the use of multimedia as a learning tool (Pitler et al., 2007). Multimedia induces radical changes in the teaching process during the coming decades (Vaughan, 2004). The aim was to utilize these findings as a foundation for addressing the utilization of multimedia technology in improving English oral performance for students at the institutes.

Teachers in foreign language contexts play a significant role in the implementation of new technology learning strategies in their curriculum with a wide variety of tools for learning. Multimedia supplies the opportunity to differentiate instruction and to alter the classroom to a dynamic, student centered environment, motivating students to collaborative learning and supporting critical thinking and problem solving skills.

It is suggested that foreign language teachers should be aware of the profits that multimedia technology can bring to their curriculum and the benefit that multimedia can bring to the students' learning process by using strategies that can match all students' learning styles. The students who took part in this research showed that they had never been exposed to multimedia presentations at pre-intermediate level, but now they find multimedia a new appropriate tool for improving speaking skill.

Results indicated that multimedia is a suitable and useful tool for language teachers and students obtain their aims based on the principles that Neo and Neo (2000) express concerning the profits of the utilization of multimedia: (a) multimedia changes and improves the traditional instructional approach, (b) multimedia permits instructors to display content in various formats reaching all the senses and making an interactive multisensory environment, and (c) multimedia alters the way instructors communicate with learners. Based on these principles, foreign language teachers need to open a new door and become technology oriented by incorporating multimedia technology into the classrooms to improve the teaching and learning process. Those teachers can use the findings of this research and the literature to concentrate on students' achievement. Teachers are also required to be aware that schools districts are empower in technology environments that will permit students to become active, independent, and lifelong learners.

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