

EFFECT OF MULTIMEDIA ACTIVITIES IN BLENDED LEARNING ON LISTENING SKILLS AND SATISFACTION IN A COLLEGE ENGLISH LANGUAGE COURSE

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ABSTRACT

This study aimed to investigate the effect of proposed multimedia activities in blended learning on students' listening skills and satisfaction in a college English language course at the Royal University for Woman (RUW) in Bahrain. The study attempted to assess the effects of the proposed strategy on the students' listening skills and satisfaction with the multimedia listening activities in the OPL (Orientation Program Lower). Results indicated that experimental group students scored higher level in their listening post-test than those in the control group. Experimental group students were satisfied with the courses designed.

KEYWORDS: *multimedia activities, interactive multimedia, listening comprehension, blended learning.*

1.0 INTRODUCTION

Since the listening skill in Second Language (L2) is not as easy as the listening skill of the mother tongue, foreign students face problems with understanding the stream of words heard from the L2 teacher and the native speaker. The traditional way of practicing listening which is still used either through listening to the teacher or audio tapes followed by questions that should be done may not give students enough help to acquire this skill. The problem of this study is reflected in the low level of students' listening skills due to the lack of background knowledge in English language learning and the rare use of the listening activities in the class. These kinds of activities were not practiced outside the classroom walls. Many times, teachers are faced with technical

problems when using audio tapes to teach listening as a result of being overused for a long time, which results in an unclear sound. So, this study focuses on the development of multimedia activities to improve the students' listening skills in the English language course Orientation Program Lower (OPL), and the students' satisfaction with these kinds of activities. Multimedia activities are extensions to the F2F class activities, which will be as remediation to the defects mentioned above. They will be taught through a virtual learning environment (Blackboard).

2.0 MULTIMEDIA

Multimedia is combining different media, e.g., text, imagery, video, animation, and sound, into one application (Jaimes, Christel, Gilles, Sarukkai and Ma, 2005). Similarly, Schwier and Misanchuk (1993) defined multimedia as an instructional program which includes a wide array of integrated sources for instruction. Burton, Moore and Holmes (1995) stated that multimedia can be considered the greatest innovation in the field of education by exponentially expanding the capabilities and productivity of computers in the classroom. Multimedia in a broader definition includes interactivity, the use of text, hypertext, graphics, video, and audio. In a research by Galbreath (1994) the following was concluded that multimedia is nothing more than an umbrella term referring to the technologies that present various combinations of graphics, text, video, audio, and animation under user control. It generally refers to the combination of two or more communications media under control of a computer user.

2.1 Multimedia and Interactivity

Mishra and Sharma (2004) defined interactive multimedia as a catch-all phrase to describe the new wave of computer software that primarily deals with provision of information. They add that interactivity in the context of multimedia often refers to the learners' ability to follow hyperlinks or stop and start video clips. Similarly, Phillips (1997) saw that interactivity in multimedia refers to the process of empowering the user to control the environment usually by a computer. Cairncross and Mannion (2001) suggested that interactive multimedia in learning must go further than simply allowing students to point or click on menus or buttons. They see that interactivity means engaging students in tasks and activities; like role-playing or giving point views in language learning, having online tests, and giving instant feedback. Based on that it is concluded that interactive multimedia is what brings advantages to education, which are:

- Supporting conceptualization and contextualization of new material presented;
- Actively involve the learner in the learning process;
- Promote internal reflection.

2.2 Multimedia and Listening Skills in Language Learning

Meskill (1996) stated that the opportunity for multimedia users to process combined media (text, sound, and video) simultaneously is a popular trend in software design in general, and language learning products in particular. While we listen, we have time to infer and elaborate. When the language is our own first language, there is sufficient time and opportunity to mentally act upon the incoming stream by creating connections, making transformations, interpretations, and mental images. When aural input is in a language for which we have a limited ability, additional effort must be expended: A portion of the mental energy otherwise assigned to interpretation and elaboration gets channelled into challenging, unfamiliar, and mechanical linguistic issues. Visuals can provide just support to such difficulty, aural processing can be viewed as supported and facilitated by visuals. Visual support provides the learner hooks on which to hang meaning and make sense of the aural stream (Meskill, 1996). Smidt and Hegelheimer, (2004) in their investigation about multimedia effect on listening comprehension stated that it appears beneficial to utilize multiple media rather than to provide access to various online resources and comprehension checks as part of a complete CALL activity. Klassen and Milton (1999) in their research evaluated the effectiveness of a multimedia-based English language learning program. Results of the study indicate that students who completed the syllabus in a multimedia-enhanced mode demonstrated significant improvement in listening skills when compared with students who completed the same syllabus in the traditional classroom mode. The results also demonstrate positive attitudinal changes for the multimedia enhanced mode of learning.

2.3 Multimedia Activities in Learning

Reeves, Herrington and Oliver (2002) stated that Problems presented to students through technology to illustrate situations and scenarios via video clips, text links and images provided motivation to complete the task and activities. Similarly, Pea (1991) mentioned that multimedia databases, collaborative activities, and interactive presentations, leads to learning activities centred on students' constructing and communicating their understanding. In a study conducted by

Develotte, Mangenot and Zourou (2005) to examine learning French cultural aspects through multimedia activities, it is concluded that multimedia activities enhanced learning certain French cultural aspects that are different from those proposed in traditional French textbooks. Students were motivated; there was a clear effort to take into account by students. Meskill (1996) stated that if what gets learned and practiced using multimedia is closely aligned with activities, successful and meaningful learning is more likely to occur.

2.4 Multimedia Activities in Language Learning

In a study made by Weinberg (2002) multimedia activities were designed as aids to improve the students language learning, results showed that students were generally satisfied with the multimedia tasks in their French Listening Comprehension Course, and in spite of technical difficulties and some frustration, the students were very satisfied with the richness of the multimedia activities and the programs. The researcher also concluded that the expectation that modern language instruction will include a multimedia component grows stronger and stronger.

Warschauer (1997) mentioned that multimedia environment has the ability to provide opportunities in eparate, yet related, activities for practicing not only listening skills in language learning but other skills like reading, speaking, and writing as well as enhancing communicative competence. Brett (1997) stated that students who were assigned to his research program liked using multimedia activities; they were seen as more attractive than the traditional books and tapes. This may be due to the novelty factor of multimedia features. For example the ability to cue up video, audio, animations and pictures, along with related tasks, and the instant feedback to these tasks, to check answers. All these factors were motivating students to do the activities of multimedia in language learning by themselves.

3.0 ACTIVE LEARNING

Bonwell and Eison (1991) defined active learning as generally any instructional method that engages students in the learning process, it requires students to do meaningful learning activities and think about what they are doing. Prince (2004) mentioned that active learning has two core elements which are student activity and engagement in the learning process. Active learning is often contrasted to the traditional lecture where students passively receive information from the

instructor. An analysis done by Chickering and Gamson (1987) suggests that students must do more than just listen: They must read, write, discuss, or be engaged in solving problems, most important students must engage in a higher-order thinking tasks as analysis, synthesis, and evaluation to be actively involved, the use of these techniques in the classroom is vital because of their powerful impact upon students' learning.

4.0 STUDENT'S SATISFACTION WITH ONLINE LEARNING

Choy, McNickle and Clayton (2002) stated that in a survey distributed by instructors in 28 institutions, they found the following 10 services were most expected by students: (a) detailed information about what is required to complete the module/course; (b) detailed information about the courses; (c) security of personal details on the institute's database; (d) clear statements of what they are expected to learn; (e) helpful feedback from teachers; (f) requirements for assessment; (g) communication with teachers using a variety of methods, for example, email, online chat, face to face; (h) timely feedback from teachers; (i) instructions on whom to approach for help; and, (j) information on how to enrol (p. 53).

In a research by Wong (2007), it is found that in a study conducted multimedia learning environment was more effective than a F2F learning environment when used in terms of satisfaction. Also, Brett (1997) believed that interactive multimedia materials which integrate language skills and contentspecific tasks result in increased motivation to learn and improved performance and thereby increases students' satisfaction. Finally, a study made by Weinberg (2002) had results which showed that students were generally satisfied with the multimedia activities in their French Listening Comprehension Course, and in spite of technical difficulties and some frustration, they were very satisfied with these kinds of multimedia activities. The researcher also concluded that the expectation that modern language instruction will include a multimedia component grows stronger and stronger.

5.0 METHODS

This study was conducted on all the students of the Orientation Program Lower (OPL) course that served as the backbone of this project, which it is set on the campus of Royal University for Women (RUW) in Bahrain in the first semester of the academic year 2010\2011. This Program is

an intensive English language program which is available to students whose IELTS level are equivalent to ILETS band score 4 or below out of 9. The program consists of 15 weeks duration of intensive English study.

However, the head of the general studies centre at the RUW recommended that the study should be applied to those students of poor English language skills who belong to this program. Those students are the ones who scored below 4 in their placement test.

5.1 Experimental Design

The study used the experimental method to achieve its purpose. The design of the research was a quasi-experimental because the students were already assigned to two groups. The students' acquisition of listening skill hypothesis was tested by a pre-test and post-test for the experimental and control groups. This includes watching a video segment and doing 3 parts questions; the first is multiple questions related to the overall events in the video. Second is matching question related to the new vocabulary in the video segment. Third is filling in the blank question related to the new grammatical structure in the video segment. The students' satisfaction with multimedia listening activities hypothesis was tested by a single sample questionnaire. This enabled the researcher to measure the students' satisfaction in the experimental group after completing multimedia listening activities.

Experimental Group	R	O	X	O
Control Group	R	O	C	O

Fig.1: Control group design with a pre/post test

5.2 Participants

Initially this study intended to conduct the study on all the students of the Orientation Program Lower (OPL) course that served as the backbone of this project, which it is set on the campus of (RUW) in Bahrain in the first semester of the academic year 2010\2011. Those students are the ones who scored below 4 in their placement test. The sample was all the available population. It was made up of 43 students, all nominated by the head of general studies centre at. These students were assigned to the experimental and control groups. The sample contained 43 female students, and it was divided into two groups by

the head of the general studies centre, 23 students in the experimental group and 20 students in the control group.

5.3 Instruments

5.3.1 Listening Achievement test

With the aid of the orientation program teacher who said that multimedia listening activities should aim to be authentic and related to everyday life situations, a video segment was chosen which is related to the listening test. The video segment is entitled "The Tree", and according to the video topic the questions were stated. The test was divided into three part questions:

1. Multiple choice questions: asks about the whole video segment;
2. Matching question: asks to match words to pictures;
3. Fill in the blank question: asks to fill in the blank with the correct word.

5.3.2 Satisfaction Scale

The aim of this scale was to measure students' satisfaction with the multimedia listening activities that were delivered through the Blackboard and in CDs as an aid to help students prove their listening skills. The five-point Likert scale was used to measure the students' satisfaction. The levels of the scale responses were strongly agree, agree, undecided, disagree and strongly disagree. All statements were positively worded and a score from 5 to 1 was assigned to the aforementioned responses. The scale was worded in Arabic to ensure that the statements were clear to all respondents.

5.4 Procedure

For developing and implementing the multimedia listening activities of the present study, ADDIE instructional design model (ID) was utilized. ADDIE model contains five main phases: Analysis, Design, Development, Implementation and Evaluation.

5.4.1 Analysis

In this phase, the study specified the components needed to start designing the multimedia listening activities. Audience of the study were identified that is, as mentioned earlier in the target population, the orientation program lower students who scored less than 4 in the placement test. These newly enrolled students in the academic year

2010/2011 were the accessible population who were nominated by the head of the General studies centre. They needed assistance in learning English language skills in general and listening skills acquisition in particular; they had a listening pre-test to measure their level for listening skill. Also in this phase, delivery options were identified the, which were the Blackboard and the CDs.

5.4.2 Design

In this phase, the learning objectives of the multimedia listening activities were developed. The plan for those activities was set. The learning objectives of those activities were:

By the end of this activity the student should be able to:

- Use expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment);
- Communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters;
- Describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need;

The flowchart in fig.2 shows the plan of each multimedia listening activity. The flowchart design explains the components of the developed instructional strategy for presenting these multimedia listening activities as well as the order of these components.

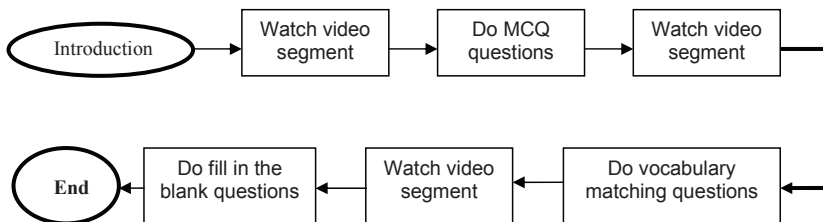


Fig. 2: The plan for the multimedia listening activities

5.4.3 Development

In this phase, the actual production of the multimedia listening activities took place. Those activities were developed by the use of specific type of software:

- Wonder share quiz creator to produce multimedia listening activities and the online units.
- Macromedia dreamweaver to produce the online units;
- SWISM max;
- Macromedia Flash;
- Photoshop CS2;
- Articulate Studio '9'.

These multimedia listening activities were designed to meet the students' needs in acquiring listening skills. They needed assistance in learning English skills in general and listening skill in particular.

5.4.4 Implementation

In this phase, the multimedia listening activities were delivered to the students through the blackboard and CDs. The students immediately began studying from them. A preliminary evaluation for content and design of the multimedia listening activities was conducted by three reviewers using a scale that the researcher designed under the supervision of the thesis advisor. The reviewers were two teachers from the AGU and one teacher from the RUW teaching the English language course. The main aspects of the scale designed included the consistency between listening activities and objectives, linguistic correctness of the activities, and if activities are appropriate for students of the English language Orientation Program.

5.4.5 Evaluation

In this phase, recommended changes were made. And the multimedia activities were divided according to Total English units' topics. After giving the students their multimedia listening activities CDs, they were told that they have to practice them at home according to the unit they reach every day, and then ask them about the video and new vocabulary as warm up questions at the beginning of each lecture.

6.0 RESULTS

6.1 Results Related to the Equivalence of the Experimental and Control Groups

Results related to the equivalence of the two groups in each of the variables age and GPA.

The non-parametric test of Mann-Witney is used, to verify the equivalence of experimental and control groups in each of the variables age and GPA before applying the research program, it is noticed as evidenced from Table 1, that there are no significant differences between experimental and control groups in each of the control variables: age and GPA, since the Z values of are not statistically significant at a level ($\alpha \leq 0.05$). Which indicates that the experimental and control groups were equivalent in each of the variable age and GPA before applying the research program, and the table shows the results of the analysis.

Table 1: Mann-Witney Test results to signify the differences between the experimental and control groups in the variables before applying the research program

Control Variable	Group	Mean Rank	Sum of Ranks	U Value	Z Value	p
Age	Experimental (n=23)	19.46	447.50	171.500	1.457	0.145
	Control (n=20)	24.93	498.50			
GPA	Experimental (n=23)	22.76	523.50	212.500	0.427	0.670
	Control (n=20)	21.13	422.50			

Results Related to the Equivalence of the Two Groups in Variable of Nationality

In order to verify the equivalence of the nationality of the experimental and control groups (Bahraini, Saudi Arabian), Chi-Square is used to determine the significance of differences between the percentages of the distribution of Bahraini students and Saudi students in the experimental and control groups, it is noticed as shown in table 2 that the proportion of Saudi students in the experimental and control groups is more than the proportion of Bahraini students, but the results of Chi-Square test pointed out that these differences are not statistically significant at a level ($\alpha \leq 0.05$) (Chi-Square = 0.973, df = 1 , p = 0.324) Table 2 shows the results of the analysis.

Table 2: Results of distribution ratios for both groups according to Nationality variable

Group	n	Nationality		Total
		Bahraini	Saudi	
Experimental Percentage	23	9 39.13 %	14 60.87 %	23 100 %
Control Percentage	20	5 25 %	15 75 %	20 100 %
Total Percentage	43	14 32.56 %	29 67.44 %	34 100 %

6.2 Results Related to the First Hypothesis

Pre-test: The non- parametric test of Mann-Witney is used to verify the significance of differences between the performance of students of experimental and control groups in the dimensions of listening skills pre-test before implementing the research program. As shown in table 3, the results indicate that there are no significant differences between the mean ranks of performance for the dimensions of listening skills pre-test and the overall degree of the dimensions of the students in both groups. All the Z values for these dimensions and total score are not statistically significant at a level ($\alpha \leq 0.05$), which indicates that the performance of students of experimental and control groups in their listening pre-test was equivalent before the application of the research program.

Table 3: Mann-Witney test results to verify significant differences between the performance of students of experimental and control groups in the listening pre-test before implementing the program

Pre-test Dimensions	Group	Mean Rank	Sum of Ranks	U Value	Z Value	p
Comprehension	Experimental (n=23)	23.78	547.00	189.00	1.136	0.256
	Control (n=20)	19.95	399.00			
Vocabulary	Experimental (n=23)	21.80	501.50	225.50	0.118	0.906
	Control (n=20)	22.23	444.50			
Grammar	Experimental (n=23)	23.02	529.50	206.50	0.611	0.542
	Control (n=20)	20.83	416.50			
Total	Experimental (n=23)	21.59	496.50	220.50	0.235	0.814
	Control (n=20)	22.48	449.50			

Post-test: the non-parametric test (Mann-Witney) is used to verify the significance of the differences between the mean rank performance of students of both groups in the dimensions of the listening post-test and the overall degree after applying the research program, which is illustrated in the table 4, and as it shows, there are significant differences between the mean rank of the of the students performance degree of both groups in the dimension of Grammar, these differences are in benefit of the experimental group. All the "Z" values of this dimension and the total degree are statistically significant at a level ($\alpha \leq 0.05$), which indicates that the method of the new teaching which is the multimedia activities that is used with the experimental group enhance the listening skills in English language learning compared to the control group.

Table 4: Mann-Witney test results to verify significant differences between the students' performance in both groups in dimensions of listening post-test after the implementation of the program

Pre-test Dimensions	Group	Mean Rank	Sum of Ranks	U Value	Z Value	p
Comprehension	Experimental (n=23)	22.83	525.00	211.0	0.0546	0.585
	Control (n=20)	21.05	421.00	0		
Vocabulary	Experimental (n=23)	21.80	561.00	175.0	1.417	0.157
	Control (n=20)	24.39	385.00	0		
Grammar	Experimental (n=23)	26.70	614.00	122.0	2.806	0.005
	Control (n=20)	16.60	332.00	0		
Total	Experimental (n=23)	25.96	597.00	139.0	2.243	0.025
	Control (n=20)	17.45	349.00	0		

6.3 Results Related to the Second Hypothesis

Mann-Witney test is used, and despite the fact that this test is based on the mean ranks, and not means, it is useful to consider the means and standard deviations, table 5 shows the results of the analysis.

Table 5: Means and Standard deviations of the students' responses of both groups to satisfaction scale

Satisfaction Scale Dimensions	Experimental Group (n=23)		Control Group (n=20)	
	Mean	Standard Deviation	Mean	Standard Deviation
Teaching method	48.48	5.53	47.60	6.53
Content	42.96	5.51	43.200	6.62
Instructor	36.13	4.00	36.75	5.05
Total	127.57	13.66	127.55	16.96

Regarding Mann -Whitney test results to detect the significance of the differences between the mean ranks of the students' responses in the experimental and control groups in the dimensions of the satisfaction scale and the overall degree of dimensions after applying the new teaching method, table 6 shows the results, and as it appears there are no significant differences between the mean ranks of the students' responses in the experimental and control groups in all dimensions of the satisfaction scale, and the total degree of these dimensions; and "Z" values for all dimensions and total score are not statistically significant

at a level ($\alpha \leq 0.05$), which means that the students of the experimental and control groups are satisfied with the new teaching method, the multimedia listening activities given to students of the experimental group, and the online units given to students of the control group.

Table 6: Mann-Witney test results to detect the significant differences between the mean ranks of the students' responses in both groups in the dimensions of satisfaction scale

Post-test Dimensions	Group	Mean Rank	Sum of Ranks	U Value	Z Value	p
Teaching method	Experimental (n=23)	20.76	477.50	201.500	0.697	0.486
	Control (n=20)	23.43	468.50			
Content	Experimental (n=23)	20.41	469.50	193.500	0.898	0.369
	Control (n=20)	23.83	476.50			
Instructor	Experimental (n=23)	20.89	480.50	204.500	0.642	0.521
	Control (n=20)	23.28	465.50			
Total	Experimental (n=23)	19.78	455.00	179.000	1.244	0.214
	Control (n=20)	24.55	491.00			

7.0 DISCUSSION

7.1 Discussion Related to the First Hypothesis

The results related to the first hypothesis of the study, showed that there are significant differences between scores of students of the experimental and control groups in their listening post-test, and these differences are in benefit of the experimental group students' performance. The study believes that these results were reached by the effectiveness of new teaching method that has been taught to students of the experimental group which was based on the use of the multimedia listening activities, which enhanced the listening skills in English language learning of the experimental group students compared to the students of the control group. The present study agrees with Brett's conclusion that the strength of multimedia lays in the ability to create a situation in which the learner can interact with the learning material and the reference material, learners of interactive multimedia should not be. The results of the present study is similar to the results of a study conducted by Brett (1997) results showed that more effective listening comprehension and recall was obvious while using multimedia activities, in this study a questionnaire was given by the researcher to the student about the reason behind these results which was the efficient and ongoing feedback given to the students. Also a study done by Klassen and Milton (1999) showed that a multimedia-

enhanced learning program does not adversely affect the development of language skills only but in actual fact enhances the learning too.

7.2 Discussion Related to the Second Hypothesis

The results related to the second hypothesis of the study showed that there are no significant differences between the students' satisfaction degree in both the experimental and control groups with the new teaching method that was given to each of them, whether the multimedia listening activities that was taught to students of the experimental group, or the electronic units that have been taught to students of the control group. The researcher believes that these results were due to the effectiveness of the program that was presented to the students of both groups, which is characterized by the flexibility which have contributed positively with the satisfaction of students of both groups in terms of knowledge, and appreciation that they got from the course. As well as method of delivery of the curriculum, and the virtual environment in which they received the curriculum, and interaction that took place between the course instructor and students, and between the students themselves.

But for a few students of the experimental who had some problems with viewing the multimedia activities on their personal laptops, they had low satisfaction with them. So the researcher believes that this may be the reason to have no difference in the degree of satisfaction between the two groups. Regarding satisfaction results this study proves the results of a study done by Brett (1997) who stated that students who were assigned to his research program liked using multimedia activities; they were seen as more attractive than the traditional books and tapes. This may be due to the novelty factor of multimedia features. For example the ability to cue up video, audio, animations and pictures, along with related tasks, and the instant feedback to these tasks, to check answers. All these factors were motivating students to do the activities of multimedia. A study made by Weinberg (2002) had results similar to the present study which showed that students were generally satisfied with the multimedia tasks in their French Listening Comprehension Course, and in spite of technical difficulties and some frustration, the students were very satisfied with the richness of the multimedia activities and the programs. The researcher also concluded that the expectation that modern language instruction will include a multimedia component grows stronger and stronger. In a study done by Richardson and Swan (2003) students who scored high in terms of perceived learning are those who scored high in terms of perceived satisfaction with the instructor and the online content. Also the study agrees with a study done by Bray, Aoki and Dlugosh (2008) they stated

that Students were generally satisfied with their online learning. Similarly, Roach and Lemasters (2006) in their study found that students in the online program were satisfied with the courses.

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