English Language Teaching; Vol. 8, No. 12; 2015
ISSN 1916-4742 E-ISSN 1916-4750
Published by Canadian Center of Science and Education

# The Implementation of Interactive Multimedia Learning Materials in Teaching Listening Skills

Andi Tenri Ampa[1]

[1] Department of English Education, Faculty of Teachers Training and Education, Makassar Muhammadiyah University, Indonesia. Tel: 62-852-5500-4490. E-mail: atenri59@yahoo.com

Received: October 8, 2015 Accepted: November 5, 2015 Online Published: November 6, 2015

doi:10.5539/elt.v8n12p56 URL: http://dx.doi.org/10.5539/elt.v8n12p56

**Abstract**

One of the factors that may affect the success of the learning process is the use of learning media. Therefore, this research aimed to implement and evaluate the interactive multimedia learning materials using Wondershare Quizcreator program and audio materials in teaching 'English listening skills'. The research problem was whether or not there was a significant difference between the results of teaching listening skills through the interactive multimedia learning materials using Wondershare Quizcreator program and the results of teaching listening skills through audio materials. The earlier process used in the research was to produce new products to be implemented. The product had been validated by the experts and tried out to the college students to get their responses towards the validity and the practicality of the products. Furthermore, the products as new materials were implemented to the experimental group and the conventional materials (audio materials) were implemented to the control group. Pretest and posttest had ben conducted before implementation. The results of statistical analysis (SPSS) showed that there was no significant difference between the results of pretest of the two groups, but there was a significant difference between the results of posttest of experimental and control groups. It was proved that the t-cal. was greater than the t-table (5.583 > 2.000) at df 70 and p.0.05. So, it was concluded that the interactive multimedia learning materials using Wondershare Quizcreator program were effective in teaching 'English listening skills'.

**Keywords:** implementation, interactive multimedia, listening skills, Wondershare Quiz Creator

## 1. Introduction

There are many kinds of Interactive Multimedia that might be implemented in teaching English listening skills. By using interactive multimedia learning materials, students can be motivated to learn, because they can listen to audio, watch the video or view the text, animation and graphics simultaneously. During this time, the learning media of the course 'listening skills' consist of audio and text, followed by exercises. Such learning media make the students bored, because there is the lack of variation, such as the use of video, animation, graphics, etc. Besides, there is no also interactive learning between lecturer and students. Listening is a skill that needs training on an ongoing basis to the students, while in the process of teaching and learning, listening activities are often ignored by teachers because they tend to assume that listening is automatically done by the students. In addition, there is no also attention to use the other media, such as interactive multimedia that can improve the quality of teaching. To overcome the problems faced by students, particularly the students majoring in English education department in a university, it is necessary to design teaching materials for the subject 'listening skills' which are equipped with interactive multimedia that can assist students to more easily understand the speech heard.

The teaching materials for listening skills using Wondershare Quizcreator consist of text and video of dialogue and monologue that are designed interactively with the users. The program used to prepare the materials is the Wondershare Quizcreator. It is one of the programs that lets the educators create exercises of learning materials. Besides, it can also make quiz with time limit, and provide instant review as well as feedback. Therefore, the students' performance in English listening can be measured with a self-grading system. As O'Connor (1998) states that listening skill should be paid attention in learning a language, because the more we hear the language the more quickly acquire it. Hence, in this research the interactive multimedia was implemented to improve the students' English listening skills.

### *1.1 Statement of the Problem*

The problem of the research was to evaluate the interactive multimedia learning materials using Wondershare Quizcreator program. Summative evaluation was conducted to know whether or not there is a significant

difference between the results of teaching listening skills through interactive multimedia learning materials using Wondershare Quizcreator program and the results of teaching listening skills through audio materials.

*1.2 Research Hypotheses*

Based on the statement of the problem, the research hypotheses are stated below:

1) There is not any significant difference between the results of teaching listening skills through interactive multimedia learning materials using Wondershare Quizcreator program and the results of teaching listening skills through audio materials (Ho)

2) There is a significant difference between the results of teaching listening skills through interactive multimedia learning materials using Wondershare Quizcreator program and the results of teaching listening skills through audio materials ($H_1$)

*1.3 Interactive Multimedia*

Hofstetter (2001) states that multimedia are the use of computers to create and combine text, graphics, audio, and video that allows users to interact, create, and communicate. The interactive multimedia mean the interplay between the user and the program or media. It means that there is a reciprocal relationship, the user gives a response to the display programs, followed by the presentation of the information presented by the media, the users, in this case the students, must be active to take role in this computer-assisted learning. They interact with some of the processes. If the interactive multimedia materials are designed well, the learning will be more effective because the students will receive ongoing feedback.

Moreover, it also helps the students to achieve the expected competencies. This material is designed as a complete ranging from assessment to guide its user. Smith (2000) states that to prepare interactive multimedia, it is necessary to have knowledge and skills, especially in operating the computer. Stemler (as cited in Rusmanto, 2012) argues that the interactive multimedia are the things that can make the learning process more interest and motivation to learn. The interactive multimedia learning is a process that is not just the use of technology, even it provides the potential for new learning to the user. As Norhasim et al. (as cited in Rusmanto, 2012) state that the criteria for good learning materials are flexible, easily updatable, the content-related materials, valid and easy to use (user-friendly). Merrill et al. (as cited in Rusmanto, 2012) also suggest that interactive multimedia include the objective, the content, navigation, hyperlink, user-friendly and interface of learning. Based on those opinions, it can be concluded that multimedia are a combination of various media in the form of text, graphic, audio, and interaction and used to convey messages from the sender to the recipient of the message. Interactive multimedia are equipped with a controller that can be operated by the users , so they can choose what is desired for further processing.

*1.4 Listening Skill*

Teaching a language is essentially taught to communicate. Therefore, language teaching is to improve students' ability to communicate both oral and written forms. But, to be able to communicate well, students must have language skills. Listening is one of the skills in language teaching that should be taught, before speaking, reading and writing (O'Connor, 1998).

Material for listening skills would be interesting to learners in accordance with their level. Ur (1984) states that the exercises for 'listening skills' are more effective if they can understand what have been demonstrated. Therefore, it is advisable to involve students with different types of input, such as' video, audio, text, animation, etc. Furthermore, it is stated that the elements that may be involved are the message, speaker, listener and the setting. The types of activity in 'listening skills' are 'dialogue' which includes 'unscripted dialogue' and 'scripted dialogue', 'authentic dialogue', and 'monologue' that can be used to practice when using media in the classroom (Holden, 1983). Such activities can be carried out to predict the speech, interpret the words, phrases, and sentences, identify the relevant matters, and to know the intention of the speaker (Willis, 1981).

A preliminary research has been conducted by Ampa (2015) in two groups of undergraduate students of Muhammadiyah University with the purpose to get respondents' opinions about the interactive multimedia learning materials using Wondershare Quizreator. The research was conducted through questionnaire to the students and interview to the lecturers. The overall results show that most of the students (79.06%) are interested in the materials and consider that these materials can facilitate them to learn listening skills. The lecturers also support the use of the materials in teaching the English listening skills.

## 2. Method

### *2.1 Research Design*

The interactive multimedia learning materials that had been validated by the experts and tried out to the students were implemented in teaching listening skills. The research design used was a quasi-experimental design with the non-equivalent control group design. There were two groups used in this research; those were experimental group and control group. The treatments were conducted in two groups. The interactive multimedia learning materials using Wondershare Quizcreator were used in teaching listening skills to the experimental group, while audio materials were used in teaching listening skills to the control group. Before treatment, the students from the two groups were tested by using listening comprehension test to know their levels of listening comprehension achievement. Then, a copy of interactive multimedia learning materials had been installed in every computer at the laboratory. The treatment was conducted and lasted one hour in every meeting. The data were analyzed by using *t*-test statistical technique (SPSS) to calculate the data at significant level 0.05. In this testing, the results of post-test from the two groups were analyzed to test the hypothesis ($H_0$), i.e. there was no significant difference between the results of posttest of experimental and control groups, and ($H_1$) was that there was a significant difference between the results of posttest of experimental and control groups. To decide the significant difference between the two groups, the results of t-cal. were compared with the t-table.

### *2.2 Population and Sample*

The populations of the research were the undergraduate students from Faculty of Letters, UMI Makassar. There were five classes. The samples were two classes from English Education Department. Each class consisted of 36 students. So, a number of samples were 72 students, and these were divided into experimental and control groups.

## 3. Results

### *3.1 Results of Pretest of Control and Experimental Groups*

The results of statistical analysis in Tabel 1 present the mean scores of pretest of control and experimental groups (47.42 and 47.25). It indicates that the two groups are not significantly different. There are 36 students from each group.

Table 1. Group statistics

| | Group | N | Mean | Std. Deviation | std. Error Mean |
|---|---|---|---|---|---|
| Pretest | Control | 36 | 47.25 | 14.167 | 2.361 |
| | Experimental | 36 | 47.42 | 15.047 | 2.508 |

The results of independent sample t-test to compare the pretest of the control and experimental groups are shown in the following table.

Table 2. Independent sample test

| | | Levene's Tes for Equality Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Pretest | Equal variances assumed | .155 | .695 | -.048 | 70 | .962 | -.167 | 3.445 | -7.037 | 6.703 |
| | Equal variances not assumed | | | -.048 | 69.747 | .962 | -.167 | 3.445 | -7.037 | 6.704 |

The results of Levene's test for homogeneity shows sig. 0.695>0.05 which means that they are homogeneous. Therefore, the first line is used, that it is t-cal -.048 at df 70, p .05. Thus, it is concluded that t-cal is fewer than t-table (-.048 < 2.000), so the two groups are not significantly different.

Test of Normality is also used to compare the pretest of experimental and control groups. The results are shown in the table below:

Table 3. Test of normality

| | | Kolmogorov-Smirnov | | | Shapiro-Walk | | |
|---|---|---|---|---|---|---|---|
| | Group | Statistic | df | Sig. | Statistic | df | Sig. |
| Posttest | Control | .105 | 36 | .200 | .974 | 36 | .542 |
| | Experimental | .089 | 36 | .200 | .969 | 36 | .390 |

The results of Kolmogorov-Smirnov and Shapiro-Walk analysis show that the values of P (Sig.) are greater than 0.05 which indicate that the pretests of experimental and control groups have normal distribution. The figures below also indicate that the plots follow the fit line which means that they are in normal distribution.

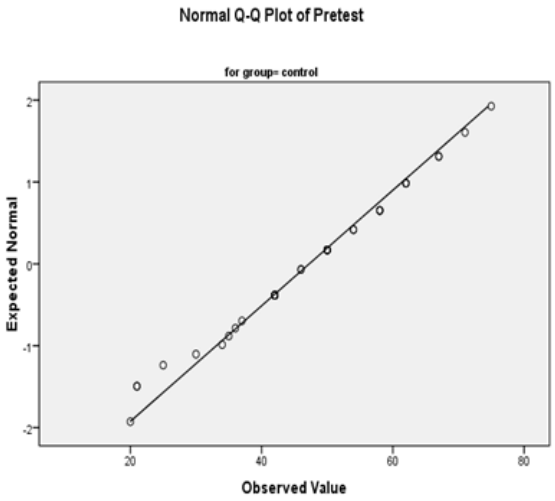



Figure 1. Normal Q-Q Plot f Pretest for Control G

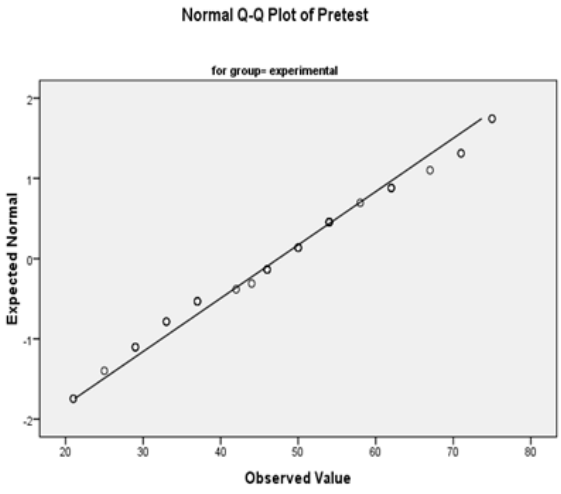



Figure 2. Normal Q-Q Plot f Pretest Experimental G

*3.2 Results of Posttest of Control and Experimental Groups*

The results of statistical analysis in Tabel 4 present the mean scores of posttest of control and experimental groups (43.47<58.25), and a number of students are 36 from each of the two groups. It indicates that the two groups have different mean scores.

Table 4. Group statistics

| | Group | N | Mean | Std. Deviation | std. Error Mean |
|---|---|---|---|---|---|
| Pretest | Control | 36 | 43.47 | 12.677 | 2.113 |
| | Experimental | 36 | 58.25 | 9.566 | 1.594 |

The results of independent sample t-test to compare the posttest of the control and experimental groups are shown in Table 5 below.

Table 5. Independent sample test

| | | Levene's Tes for Equality Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Posttest | Equal variances assumed | 2.887 | .094 | 5.583 | 70 | .000 | -14.778 | 2.647 | -20.057 | -9.499 |
| | Equal variances not assumed | | | 5.583 | 65.099 | .000 | -14.778 | 2.647 | -20.064 | -9.492 |

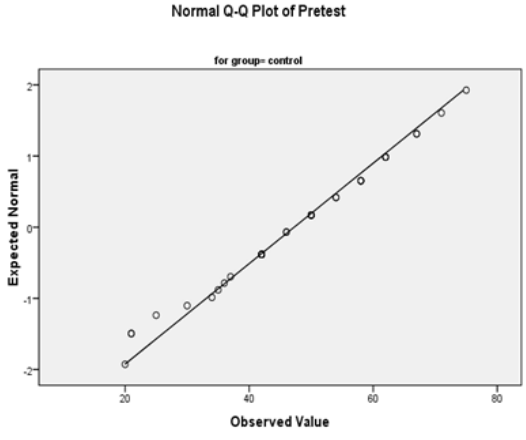
The results of Levene's test for homogeneity shows sig. 0.094>0.05, meaning that they are homogeneous. Hence, the first line is used, that is t-cal 5.583 at df 70, p .05. Therefore, it is concluded that t-cal is greater than t-table (5.583< 2.000), so the results of posttest of two groups are significantly different. Therefore, $H_1$ is accepted and $H_0$ is rejected.

Test of Normality is also used to compare the posttest of experimental and control groups. The results are shown in Table 6 below.

Table 6. Test of normality

| | | Kolmogorov-Smirnov | | | Shapiro-Walk | | |
|---|---|---|---|---|---|---|---|
| | Group | Statistic | df | Sig. | Statistic | df | Sig. |
| Posttest | Control | .148 | 36 | .044 | .963 | 36 | .257 |
| | Experimental | .125 | 36 | .172 | .962 | 36 | .250 |

The results of Kolmogorov-Smirnov and Shapiro-Walk analysis show that the values of P (Sig.) are greater than 0.05 which indicate that the posttest of experimental and control groups have normal distribution. The figures below also indicate that the plots follow the fit line, meaning that the posttest of experimental and control groups have normal distribution.




igure 3.

Normal Q-Q Plot of Posttest for Control G

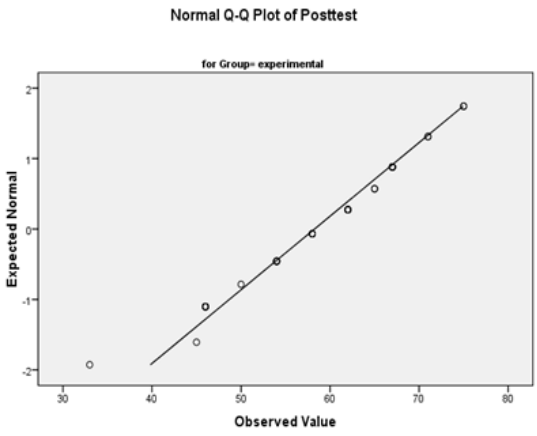



Figure 4.

Normal Q-Q Plot of Posttest forExperimental G

## 4. Discussion

This study reveals that teaching listening skills by using interactive multimedia learning materials that have been designed and developed with the Wondershare Quizcreator program are very effective. The steps to develop these materials consist of four phases: Decide, Design, Develop, Evaluate (DDD-E) proposed by Ivers and Baron (2010). Plomp and Nieven (2007) propose four points about the quality of learning materials, namely: relevance, consistency, practicality, and effectiveness. Relevance relates to the validity of the content; consistency refers to the validity of the construction; practicality is associated with the users of the products. In this case, the users are the lecturers and the students. The effectiveness refers to the achievement of expected outcomes. Preliminary studies conducted by Ampa et.al. (2015) are concerning the relevance, consistency, practicality of the interactive multimedia learning materials using that program. The results showed that the products were highly relevant, consistent, and practical.

This study reveals the effectiveness of interactive multimedia learning materials for listening skills using Wondershare Quizcreator. Implementation was done to two groups of students. Before the implementation, the pretest had been given to the students from the two groups to determine the level of students' abilities of listening skills, followed by the application of the interactive multimedia learning materials for the experimental group and audio materials for the control group. Posttest was conducted after implementation. The results of posttest showed the significant differences based on statistical tests (SPSS). Therefore, it can be concluded that the interactive multimedia learning materials using Wondershare Quizcreator are effectively used in teaching listening skills.

Effectiveness is also proved by the achievement of learning objectives. Each learning objective is measured in every implementation which consists of videos of dialogue and monologue which are heard by the students. The exercises in the interactive multimedia learning materials include multiple choices, matching, filling the blanks, and true-false completed with the answer keys. Thus, the students can practice their listening skills and they can check their answers and find their scores. If their answers are wrong, they can review and repeat to do the exercises. Therefore, the students can train their listening skills, so that the learning objectives can be achieved.

**Acknowledgments**

This research received a grant from Directorate General of Higher Education, Ministry of Research and Technology, Indonesia.

**References**

Ampa, A. T. (2015). Developing Interactive Multimedia Learning Materials for Listening Skills. Indonesia: Dirjen Dikti.

Allwright, R. L. (1990). *What do we want teaching materials for? Currents in language teaching*. USA: Oxford University Press.

Betrancourt, M. (2005). *The animation and interactivity principles in multimedia learning.* In R. E. Mayer (Ed.). *The Cambridge Handbook of Multimedia Learning.* New York: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511816819.019

Cereijo, V. (2008). *What is multimedia*. University of North Texas: www.tcet.unt.edu/weblibrary/ppt/whtmedia.ppt

Frey, B. A., & Sutton, J. M. (2010). A Model for Developing Multimedia Learning Projects. *MERLOT Journal of Online Learning and Teaching, 6*(2), 491-507. http://jolt.merlot.org/vol6no2/frey_0610.pdf

Gay, L. R. et.al. (2006). *Educational Research. Competencies for Analysis and Application* (Eight edition). Columbus: Pearson.

Hofstetter, F. T. (2001). *Multimedia Literacy*. Third Edition. McGraw-Hill International Edition, New York.

Ivers, K. S., & Barron, A. E. (2010). *Multimedia Project in Education*. USA: ABC-CLIO, LLC.

O'Connor, J. D. (1998). *Better English Pronunciation* (Second Edition). University of Cambridge, New York.

Plomp, T., & Nieveen, N. (2010). *An Introduction to educational design research*. www.slo.nl/organisatie/international/publications11

Richards, J. C., & Charles, L. (1994). Reflective Teaching in Second Language Classroom. New York: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511667169

Rusmanto. (2012). *Media pembelajaran multimedia*. Retrieved from http://ojonx.wordpress.com/2013/01/21/media-pembelajaran-multimedia-interaktif-yang-baik/

Smith, S. (1999). *What Are Interactive Learning Materials?* Retrieved from http://www.ehow com/info_7947754_interactive-learning-materials.html

Ur, P. (1984). *Teaching Listening Comprehension*. Cambridge: Cambridge University Press.