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Educational Research to Endorse Productive and Innovative Generation in the 21th Century

16-17 October 2017
Ball Room Grand Mercure Hotel, Medan - Indonesia

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"Educational Research to Endorse Productive and Innovation Generation in The 21th Century"

Grand Mercure Hotel, Medan City, North Sumatera, Indonesia
October 16-17, 2017

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Preface

The 2nd Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL with web link is http://aisteel2017.unimed.ac.id/) was held on October 16 -17, 2017 in Medan City, Indonesia. This conference was organized by Postgraduate School, State University of Medan (Unimed) and is the routine agenda at Unimed now. The Second Annual International Seminar on Transformative Education and Educational Leadership' is realized this year with various presenters, researchers, lecturers and students from universties both in and out of North Sumatera participate in the theme of which is "Educational Research to Endorse Productive and Innovative Generation in the 21st Century."

2nd AISTEEL is the annual international seminar with main aim is to discuss of recent research special for Transformative Education and Education Leadership. Several topics like: Teachers Education Model, Research Global Issue in Education, Mathematics and Science Education, Social, Languange Education, Vocational Education, Curriculum, Economic, History and Management Education have been discussed at the 2nd AISTEEL 2017. 2nd AISTEEL international seminar provided experts' view on transformative education and educational leadership as well as curriculum article presentation. There were five keynote speakers have been came Professor Keiichiro Yoshinaga, Dr. Bambang Sumintono, Dr. Sitti Maesuri Patahuddin, and Dr. Yulia Rahmawaty. The organizer had been use online submission system to receive all abstract, full paper and also communication with authors. All of information include with comment of reviewer can be cheked real time by author.

Chairperson

Dr. Rahmad Husein, M.Ed

Welcoming Speech of Director of Postgraduate School State University of Medan

The Second Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL)

The honorable,

- *Rector of State University of Medan,* Prof. Dr. Syawal Gultom, M.Pd.
- *Vice Rectors of UNIMED*
- *Professor Keiichiro Yoshinaga, PhD, Institute of Liberal Arts and Science, Kanazawa University – Japan*
- *Dr. Bambang Sumintono, M.Ed., University Malaya – Malaysia*
- *Dr. Sitti Maesuri Patahuddin, Faculty of Education, Science, Technology and Mathematics, University of Canberra – Australia*
- *Yuli Rahmawati, Chemistry Education Program, Universitas Negeri Jakarta*
- *Deans of Faculties of Education, Languages and Arts, Social Sciences, Natural Sciences and Mathematics, Engineering, Sports Sciences, and Economics*
- *Vice Directors of Postgraduate School of UNIMED*
- *All speakers, lecturers, researchers, students, and participants*

Good Morning

Welcome the honorable guests speakers Professor Keiichiro Yoshinaga, Dr. Bambang Sumintono, Dr. Sitti Maesuri Patahuddin, Assoc. Prof. Emilia Zulmira de FAN, and other speakers, lecturers and students from outside and inside Unimed to this international seminar which is the routine agenda at Postgraduate program of Unimed now. I'm glad that 'The Second Annual International Seminar on Transformative Education and Educational Leadership' is realized this year with various presenters, lecturers and students from universties both in and out of North Sumatera. and participate in the theme of which is "Educational Research to Endorse Productive and Innovative Generation in the 21st Century."

Ladies and Gentlemen,

In this second seminar exels the first one related to the administration by online and the publication index by either Thomson Reuters or Google Schoolar. By the new policy on student's publication, postgraduate program really matches the system, particularly for the students who will sit in the oral defence examination. Through the seminar, the postgraduate students improve their article journal writing and it is proved by many articles are submitted by the students.

The plenary speakers coming from 15 provinces in Indonesia will present topics covering multi disciplines. They will contribute a lot of inspiring inputs and new knowledge on current trending educational research topics all over the world. The expectation is that all potential lecturers will share their research findings to educational scientists and researchers as well for improving their teaching process and quality. Thus, this will contribute to the next young generation researchers to produce innovative research findings in education and educational leadership contexts.

This second seminar continues the promotion of the first sequel 'Developing Future Teachers' Education Model. Therefore, the propose of this second seminar on the transformative education and educational leadership research will trigger the young professional lecturers and educators to compete in the invention of inovative educational teaching and learning strategies, techniques and leadership.

I hope that the scientific attitude and skills through research will promote Unimed to be a well-known university which persists to be developed and excelled in the future.

Thank you the Rector of Unimed who always supports us in organizing the seminar. Thank you all guest and plenary speakers. Special thanks to both steering and organizing committee who have well-coordinated and colaborated in actualizing the seminar.

Director of Postgraduate Unimed

Prof. Dr. Bornok Sinaga, M.Pd

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The Effect of Using Audio Visual Media on Students' Vocabulary Mastery

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Abstract- **This study deals with the effect of using audio visual media on students' vocabulary mastery. The objective of the study was to investigate the effect of using audio visual media on students' vocabulary mastery. This study was conducted in private primary school. The population of this study was the forth grade students which consisted of two parallel classes with the total number of the students was 40 students. All students were used as sample in this study (class IV-A and IV-B). This study used experimental research. The instrument used in collecting data was multiple choice test. The total items of the test was 20 items. The finding showed that t-test (6.60) was higher than t-table (2.10) with the level of significance 0.05 and the degree of freedom (df) = 18. It shows that the hypothesis alternative (ha) was accepted. It means that there was significant effect of using audio visual media on students' vocabulary mastery.**

Keywords: vocabulary mastery, audio visual media

I. INTRODUCTION

Mastering vocabulary is important for learners since vocabulary mastery, as one of the basic components, plays an important role in the four language skills. It gives contribution to learners to perform their skill better. It is impossible for the students to perform their English appropriately, if their vocabularies are very weak. It means that by having limited vocabularies, the students will find difficulty to master the language skills, since a good store of words is crucial for understanding and communicating. Therefore, vocabulary mastery must be at the first priority in English language learning.

When the researcher did teaching found out that there were some students' problems in vocabulary mastery. The first reason the researcher chose this title because the students had difficulties in learning vocabulary mastery. Their scores do not achieve Minimum Passing Grade (MPG). The problem arose because English is still foreign for them, the second reason was because without vocabulary mastery, oral communication cannot run well. The third reason was because the teachers had difficulties to find the effective materials to increase the students' vocabulary mastery. The teachers often use the conventional way in teaching vocabulary mastery. Sometimes, they still ask the students to memorize some vocabularies. It can make the students feel bored and they are not interested in vocabulary mastery.

Cameron (2001: 94) says that a major resource for language teaching terms, the development of words, the meaning and the links between them will be covered under the term vocabulary. According to Cakir (2006), audio-visual materials can encourage foreign language learning and they help in stimulating and facilitating learning English. It makes learning dynamic, experience, and more realistic, it has developed since 1920s by drawing on new technologies of communication.

In this case, the researcher used audio visual media as an effort to achieve maximum learning results. So the researcher was interested in research the effect of using audio visual media on students' vocabulary mastery of the forth grade students of SDIT UMMI AIDA Medan (Private Primary School) of the academic year of 2017/2018.

The research question to guide this study is:
Is there any significant effect of using audio visual media on students' vocabulary mastery?

A. Description of Audio Visual Media

Robert Heinich (2002: 9-10) explains media is a medium (plural, media) is a channel ofcommunication. Derived from the latin word meaning "between" the term refers to anything that carries information between a source and a receiver. Examples include video, television, diagrams, printed materials, computers, and instructors.

Audio-visual is more efficient than the other media to use in the process teaching and learning process. It has an integral part of good education. Good teachers have always recognized that education and life are one and have used everything at their command to vitalize the learning process through the five sense. In other words, such media can be both seen and listened.

Meanwhile, Elliot et al in Rina (1998: 491) states that audio-visual aids are the technology usually used to present information in several different formats usually supplementing a teacher presentation; for example: TV and video players. Based on the definitions above, it can be concluded that audiovisual is the technology usually used in supplementing a teacher presentation both in the audio and visual form. The strengths of audio-visual aids are to add, maintain and stimulate interest; to save time; to clarify and

clear up problems of ambiguity; to reinforce the concepts you are trying to communicate in words; to be useful in conveying emotive elements; to aid in memorization; to provide 'proof' and make an issue 'real'. The weaknesses of audio-visual aids are as follows:

1) Production cost for video material can be expensive
2) Material goes out-of-date quickly
3) It may require special equipment and space for viewing and listening
4) The equipment will require regular servicing to minimize breakdowns, inclined to 'sit on the shelf.

Media can be classified into three categories: visual, audio, and audio visual.

1) Visual media

There are two kinds of visual media; those are unprojected media and projected media.

a) Unprojected media

Unprojected media can be divided into:

(1) Realia or real thing. The object must not be presented in class, but students should be able to see and observe them. For example the students observe the ecosystem, plant, the diversity of living thing, et cetera. These media are able to give real experiences to the students.
(2) Model. Model is the imitation of real thing presented in three dimension form as substitution of the real thing. This medium helps the teacher to present the object that cannot be brought into the class, for example digestion system, respiration system, excretion system, et cetera.
(3) Graphic. The functions of graphic are to catch the students' attention, clarify the lesson, and illustrate the fact or forgettable concept. There are many kinds of graphic, such as picture, sketch, scheme, chart, and graph.

b) Projected media

There are two types of projected media:

(1) Transparency of OHP. This is stated as the real media because the teacher must not change the layout of the class and still able to face the students. Transparency media includes software (OHT) and hardware (OHP).
(2) Bordered film or slide. This is a transparent film that usually has measurement of 35mms and border 2x2 inches. The use of this medium is the same as OHP, but the visualization of this medium is better than OHP.

2) Audio media

There are two kinds of audio media that are commonly used:

a) Radio. Radio is an electronic tool that can be used to listen to the news, new important events, life problems, et cetera.
b) Audio cassette. This tool is cheaper than the other because the supplying and the treatment cost are relatively cheap.

3) Audio visual media

There are many kinds of audio visual tool:

a) Video. This is one kind of audio visual media, besides film. In learning process, this tool is usually presented in the form of VCD.
b) Computer. This tool has all the benefit of the other media. Computer is able to show text, picture, sound and picture, and can also be used interactively. Even, computer can be connected to internet to browse the unlimited learning sources.

B. The Use of Audio Visual Media in Learning English

According to Gruba (1997) in his research that the effect of video materials which he explains as the combination of sound and dynamic visual elements and multimedia applications on the assessment of listening comprehension. The use of video media in evaluating listening comprehension makes its more challenging. Mayer (2003) investigated the role of visual materials in second language learning among English as a Foreign Language (EFL) students using pictorial stimuli corresponding with text, and discovered that the use of pictures does help in second language acquisition. De Bot, Lowie, and Verspoor (2005) suggested that students' positive attitudes towards language learning affect the target language learning. Based on Mutar (2009), the use of power point slides help the teacher to send their lectures in dynamic ways which becomes interesting to the learners. Potosi et al. (2009) did a research to see the impact of video on listening skill and towards video. The mission of the program was to prepare professional English teachers to increase the educative level of the region in the learning of English as a foreign language. They consider video materials as authentic which provide real situations, intonations, hesitations, rephrasing and other authentic features of native speakers` speech which give to easier understanding of pronunciation. It is concluded that implementing video material to advance listening skill has important effect on listening comprehension, awareness of English language pronunciation, stress and intonation. Also, videos promoted learners` motivation.

Mathew and Alidmat (2013) considered a study on the usefulness of audio-visual aids in ELT in Saudi Arabia context. They found how the use of audio visual materials helps the language teacher in EFL classroom at undergraduate level. The result of their study indicates that using audio-visual materials in language teaching is helpful for both the teachers and the students. Ismaili (2013) did a different study to observe the effect of movies to make learners to be more involved in reading activities. The study aimed to explain and analyze the effectiveness of using movies on improvement of language competence and performance of learners in academic settings. Also the study aimed to examine whether movies may provide as a bridge between learning skill and language objectives or performances of learners. Through the questionnaires the learners` attitude towards movie-based teaching and learning were investigated. Naraghizadeh and Barimani (2013) examined a research to see the effect of Call on the vocabulary learning of Iranian EFL learners. Their study was concluded to consider the effectiveness of call on

Iranian EFL learners' vocabulary learning as compared to those students receiving traditional instruction using the printed text materials. The results of descriptive statistics showed that the group who received Computer Assisted Language Learning was more significant in this study.

C. Hypothesis

The hypothesis of this research as follows:

Ha: There is a significant effect of using Audio Visual Media on students' vocabulary mastery.

Ho: There is no a significant effect of using Audio Visual Media on students' vocabulary mastery.

II. METHODS

The experimental quantitative research was applied in this research. The experimental research is a study of two different groups, experimental that consisted of 20 students and control group consisted of 20 students. In this research, the experimental group was taught by using audio visual media and the control group was thaught by using traditional way. The design can be seen in the table 1 below.

Table 1. Research Design

Class	Pre-Test	Treatment	Post test
IV-A	√	Using audio visual media	√
IV-B	√	Using traditional way	√

Where;
IV-A = Experimental Group
IV-B = Control Group

In this experimental study, which aims to investigate the effect of using audio visual media on students' vocabulary mastery. The population of this study was taken from the forth grade students of SDIT Ummi Aida Medan (Private Primary School) of 2014/2015 academic year, which consisted of two parallel classes. Every class consisted of 20 students. So the total number of the students were 40 students. In this study all of the population used as participants. In this case, there were 40 students became the sample of the research. The total number of the students were divided into two groups, namely 20 students for experimental group and 20 students for control group.

In this research multiple-choice test was used as the instrument in collecting the data. The media that was used as the source of the data was video as audio visual media. The test consisted of 20 items, each item of the test consisted of 4 options, namely a, b, c, and d. To validate the instrument of this research, the validity and reliability of the test were established. These two factors should be fulfilled by a test before they were used to derive valid data in a research. Validity is a measurement that show in the high level of capability or validity measurement. There are 20 respondents of the validity of the test at the forth grade students of private primary school of the academic year of 2017/2018. To examine the validity of the test, the researcher used correlation product moment from significant; .

The other thing was reliability is the consistency and dependability of measure obtained from the test. A test can be said as valid if the test could be reliable, consistence or stable and productive. This mean progressively reliable of the test has conditioned, so progressive certainly researcher can be said that in result of the test has same result when will be done retest.

The data collected was analyzed using SPSS and a t-test was computed to ensure the groups equivalence. Firstly, pretest was conducted to find out the students' vocabulary mastery before having treatment. Secondly, in teaching vocabulary different treatment was conducted to the experimental group and the control group. Thirdly, post-test was given to both groups, the experimental and the control group after having the treatment. The post test is the same as the pre-test. The final test in the research, especially in measuring the treatment, whether it is significant or not, it is applied to know the effect of teaching vocabulary in both classes. It means to find out the differences scores of both the experimental and the control group before and after giving the treatment.

In this research, descriptive quantitative technique was applied to analyze the data, and the steps were:

1. Scoring the students' answer.
2. Listing the score into tables, first for the experimental group scores and the second for the control group scores.
3. Calculating the total score post-test in experimental group and control group.

III. RESULT AND DISCUSSION

This study investigated the effect of using Audio Visual media on students' vocabulary mastery. The scores obtained from the participants' vocabulary mastery pre- and post-tests were compared. The results are presented in accordance to the research question.

In order to answer the research question, descriptive analysis and paired samples t-tests were used to investigate any statistically significant differences in the results of the post-test compared with those of the pre-test for both groups. For the control group, table 2 below reports the paired samples t-test results for listening comprehension scores.

Table 2. Paired t-test results for control group (differences between pre- and post-test)

Variable	Test	No	Mean	Std. Deviation	t value	Sig.(2-tailed)
Vocabulary Mastery	Pre	20	58,00	16,34	31,66	0,000**
	Post	20	67,00	17,65		

**significant at 0.05 level

Table 2 shows that the performance of the students in the control group improved significantly in vocabulary mastery scores [t=31.66,p=0.000]. There are significant differences

between the students' vocabulary mastery in favor of the post-test scores at the level of p<.05.

For the experimental group, table 3 below reports the paired samples t-test results for vocabulary mastery scores.

Table 3. Paired t-test results for experimental group (differences between pre- and post- test)

Variable	Test	No	Mean	Std. Deviation	t value	Sig.(2-tailed)
Vocabulary Mastery	Pre	20	62,50	15,17	12,03	0,000**
	Post	20	75,75	17,79		

**significant at 0.05 level

Table 3 reveals that the experimental group affect significantly in vocabulary mastery [t = 12.03,p=0.000] at the level of p<.05 in favor of the post-test results. The results of both groups showed that there were significant effect on students' vocabulary mastery. Based on the data of this research, table 4 is the result of post-test of experimental and control group.

Table 4. The Result of the Post-Test of Experimental and Control Group

Test	N	Mean	Std. Deviation	T	Df	Sig.(2-tailed)
Post-Test Experimental	20	77,75	17,79	6,60	18	0,000**
Post-Test Control	20	67,00	17,65			

**significant at 0.05 level

The result of the test in table 4, showed whether audio visual had significant effect on the students' vocabulary mastery. The value of the compared by the , > (6.60>2.10). it meant that H_a was accepted and H_0 was rejected. So, it can be concluded that, there was significant effect of using audio visual media on students' vocabulary mastery.

Based on the data analysis, the finding of this research showed that there was a significant effect of using audio visual on teaching vocabulary, it was shown be the (6.60) was higher than the (2.10) at and = 0.05 or (6.60 > 2.10). So, the null hypothesis was rejected and the alternative hypothesis was accepted. It meant that there was a significant effect of vocabulary mastery by using audio visual media.

IV. CONCLUSION

After analyzing the data, the result showed that the students who were taught by using audio visual media got better achievement than those taught by using traditional way, and it was proved by the result of post-test both of groups. The highest score of post-test in experimental group was 95 and the lowest score was 65, while the highest score of post-test in control group was 85 and the lowest score was 55. And there was a significant effect of using audio visual on the students' vocabulary mastery, which was proven by the result of the test. (>) from significant; at and 5% or 5.09 >2.02.

After analyzing the data, the result showed that the students who were taught by using audio visual media got better achievement than those taught by using traditional way, and it was proved by the result of post-test both of groups. The highest score of post-test in experimental group was 100 and the lowest score was 30, while the highest score of post-test in control group was 100 and the lowest score was 20. And there was a significant effect of using audio visual on the students' vocabulary mastery, which was proven by the result of the test. (>) from significant; at 18 and 5% or 6.60 >2.10

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