

## THE EFFECT OF MULTIMEDIA ON EXTROVERT AND INTROVERT VOCATIONAL STUDENTS IN DEVELOPING THEIR SPEAKING SKILL

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### ABSTRACT

Multimedia gives chance to the students in developing their language skill. This research goal is to find out if there is significant effect of multimedia on extrovert and introvert vocational students in developing their speaking skill. This study was done using experimental research. Questionnaire and pre and post tests were used to analyze the effectiveness of multimedia on speaking learning teaching activities. It was done in AKPRIND Institute of Science and Technology Yogyakarta with the even semester students of Mechanical Engineering Department of Diploma 3 Program academic year 2011/2012. The results of this research presented in the analysis result that  $T$  count = 8.115 with 37 df. The values obtained from the  $t$  table  $t(0.05, 37) = 1.692$ . Because  $t = 8.115 > t$  table = 1.692, then there is a significant effect in the presence of multimedia on the extroverted respondents. And  $T$  count = 11.416 with df. 31, the values obtained from the  $t$  table  $t(0.05, 31) = 1.697$ . Because  $t = 11.416 > t$  table = 1.697, then there is a significant effect in the presence of multimedia on the introverted respondents. It is obvious that the presence of multimedia gives significant effect to extroverted and introverted vocational students in developing their speaking skill.

**Key words:** extrovert and introvert vocational students, multimedia, speaking skill

### INTISARI

Multimedia memberikan kesempatan kepada siswa untuk mengembangkan kemampuannya. Tujuan penelitian ini adalah untuk mengetahui apakah ada pengaruh yang signifikan multimedia pada siswa vokasi ekstrovert dan introvert dalam mengembangkan keterampilan berbicara mereka. Penelitian ini dilakukan dengan menggunakan penelitian eksperimental. Kuisisioner dan pre and posttest digunakan untuk menganalisis keefektifan multimedia dalam kegiatan belajar mengajar berbicara. Pelaksanaannya di AKPRIND Institut Sains dan Teknologi Yogyakarta bersama mahasiswa semester genap Jurusan Teknik Mesin Program Diploma 3 tahun ajaran 2011/2012. Hasil penelitian ini disajikan dalam hasil analisis bahwa  $T$  hitung = 8.115 dengan 37 df. Nilai yang didapat dari  $t$  tabel  $t(0,05, 37) = 1,692$ . Karena  $t = 8,115 > t$  tabel = 1,692, maka terdapat pengaruh yang signifikan keberadaan multimedia pada responden ekstrovert. Dan  $T$  hitung = 11,416 dengan df. 31, nilai yang diperoleh dari  $t$  tabel  $t(0,05; 31) = 1,697$ . Karena  $t = 11,416 > t$  tabel = 1,697, maka terdapat pengaruh yang signifikan antara keberadaan multimedia pada responden introvert. Keberadaan multimedia jelas memberikan pengaruh yang signifikan bagi siswa SMK ekstrovert dan vokasi introvert dalam mengembangkan keterampilan berbicara.

**Kata kunci:** siswa SMK ekstrovert dan introvert, multimedia, keterampilan berbicara

## 1. INTRODUCTION

Multimedia used in various fields of works like business, industries and educational activities. Saharudin (2010) says, "Multimedia is used in various fields like medical, home entertainment, communication, administration, business and industries, and also education and training." And Indonesia is one of countries that use multimedia as learning teaching activities media.

Media for learning teaching activities is very important. An English lecturer will not be able to guide his students well without having suitable media. There are many kinds of media for guiding students on learning English, but the media may or may not promote learning, depending on how it is used. It is also happened when a lecturer uses multimedia. It is met with Lindstrom's statement (1994), as quoted by Neo (2001) that the use of multimedia in industries has been extensive, as it has been effective in increasing productivity and retention rates, where research has shown that people remember 20% of what they see, 40% of what they see and hear, but about 75% of what they see and hear and do simultaneously.

English as a tool of communication is stressed to be learnt. It is known that speaking skill is important to be mastered in this era of globalization, but some students ignore it. Actually there are more and more working fields which ask employee candidates who have to be able to speak English fluently. Unfortunately English is only given in one or two semesters in some vocational institutes, on the first or second semester.

Actually, there are two kinds of students in a class. The ones who are talkative and others are the ones who always keep quiet. That is not because they do not understand or cannot speak the language, but it is because their personality types. Some of the students are extroverts and some of them are introverts. Extroverts

love being surrounded by many people and have the power from other people presence. But introverts love being alone or with one or two friends only because they have their own power. Enche (2011) compares the extroverts likes a solar panel (it needs energy from other sources) and introverts like a battery or alternating current (it has its own energy).

This research will study the effect of multimedia on extrovert and introvert vocational students in developing their speaking skill. It will find out if multimedia gives an effect and will it be more effective for developing extrovert and introvert students' speaking ability or not. This research will compare the pre-test and post-test gain scores of extrovert and introvert. By doing this it will be known if multimedia has an effect and it is going to be known the one that get more advantages on developing their speaking skill using multimedia.

The use of multimedia will be more effective for developing the students speaking skill because there are animations, moving pictures, and texts which are able to make students understand the topic better, also there is sound that able to make students know the way to pronounce English words correctly. Zimmer (2003) also said, "Pictures and animations help bring to life scientific principles, and multimedia allows students to take a more active role in learning; they can watch experiments in action, see microorganisms up close, and use a mouse or keyboard to navigate images, simulations and interactive material."

Based on the title of this study the effect of multimedia on extrovert and introvert vocational students in developing their speaking skill; then the research question is: is there any difference in the effect of multimedia on extrovert and introvert vocational students in developing their speaking skill? And because this thesis is an experimental research, the goal of this research is: to find out whether there is any significant difference in the effect of multimedia on extrovert and introvert vocational students in developing their speaking skill.

There are three relevant researches which are related with this study that are similar or at the same stream. We present the summary of the researches are all about to illustrate the researches concepts.

The first research was done by Gromik (2012), who wrote in his research report paper - Research on Teaching with Videos - which stated that the Multimedia English course is a required class, offered in weekly 90-minute sessions throughout a 15-week academic term. The aim of the course is to provide students with opportunities to speak with limited teacher guidance or prompting. The course asks the students to investigate and apply language that best fits their needs during the process of creating video skits. He also said that multimedia empower students to explore and develop their skills in language and technology use by providing them with an authentic learning activity. Based on his experience in Multimedia English suggests the utility of asking students to use multimedia in the foreign language classroom. In line with Richards (1990), as quoted by Gromik, explains that the role of the foreign language teacher is to provide a purpose for utilizing the target language; the movie making process provides such purposeful motivation. Moreover, students benefit from integrating video production and editing into their language learning experiences because participating in the entire production process affords learners multiple opportunities to view and reflect upon their uses of the target language.

The second study was done by Kezwer (1987), she had done a research on The Extroverted vs. the Introverted Personality and Second Language Learning, from the conclusion of her research report known that the language assessment instrument, the structure of the class, the immersion situation, and the child's tendency to be oriented towards peers or adults may all be contributing factors to the influence of outgoing behavior (extroverts) on second language learning. More studies need to be done in this area to investigate the interplay of these various contributing variables. In the meantime, we can say that it seems that extroversion does have some bearing on second language learning, although the exact nature of this relationship is still blurry and may be influenced by various contributing factors. More controlled research must be carried out in this area in order to attempt to separate the variables which are at play in the question of the influence of an extroverted personality on second language learning.

She said that a better way of approaching the problem would be to provide as much variety in the classroom as possible to ensure that all personality types are catered to in some measure. A lively mix of frontal teaching, group study, pair work and individual learning in all of the four language skills is our best insurance for providing optimal learning conditions for all of our students, outgoingness (extroverts) and reservedness (introverts).

The third research was done by Lee (2005), who had done an observation on Teaching Speaking to Extrovert and Introvert Students with twenty students from different countries, and he found that there were unclear differences between them and need further investigation; he also said that it needs more sample and another type of measurement to differentiate student personality types (extrovert and introvert) on learning speaking. Lee also referred to some experts opinions like Myers (1962), extroverts tend to prefer learning situations that afford interaction, while introverts tend to prefer small groups; Galvan and Fukada (1997/1998) found that students who were outgoing participated more than introverts. The study also determined that participants who self-reported as having passive personalities were least likely to initiate a question or volunteer an answer to a teacher's question. Additionally, knowledge of personal preferences can help teachers and administrators understand and predict student performance so they can restructure the situation to facilitate more

student participation; while Barrett and Connot (1986) said that introverted students are least involved in school activities and have lower academic achievement. As Carskadon (1978) as cited by Lee states, extroverts generally produce more action with fewer thoughts whereas introverts produce numerous thoughts with little action.

## **2. RESEARCH METHODOLOGY**

This research implemented experimental research. Experimental research is a part of difference relationship that implies a cause-effect relationship between two variables or more where treatments and measurements are involved. In an experiment, we deliberately change one or more process variables (or factors) in order to observe the effect the changes have on one or more response variables. The (statistical) design of experiments (DOE) is an efficient procedure for planning experiments so that the data obtained can be analyzed to yield valid and objective conclusions.

DOE begins with determining the objectives of an experiment and selecting the process factors for the study. An Experimental Design is the laying out of a detailed experimental plan in advance of doing the experiment. Well-chosen experimental designs maximize the amount of "information" that can be obtained for a given amount of experimental effort (NIST/SEMATECH e-Handbook of Statistical Methods, April 2012).

Experimental research relates to treatment, dependent variable, and independent variable. There are control group and experimental group. But, this research compared the dependent variables – the variable representing the value being manipulated or changed or tested– extrovert and introvert groups of vocational students. They were two different experimental groups and speaking skill, when the independent variable, the manipulator, multimedia is used. The two things which compared were the gain scores of pre-tests (to measure the initial students' ability before treatment) and the post-tests (to measure students' ability after treatment) of the extrovert and introvert. Then, the result of the comparison observed and would be clear to find out the effect of multimedia on extrovert and introvert vocational students in developing their speaking skill.

This study was done at AKPRIND Institute of Science and Technology Yogyakarta. The problems of this research was about the participants were vocational students that had to learn four skills of language learning in a semester. There are seventy students in the class and most of them are boys. But, gathering the data is not as easy as what the writer has planned (because the department has scheduled activities for students). It needs time because there are some activities that have to be done by the students like practicum and excursion study.

There was a very limited of time; it was about 3 up to 4 weeks. The participants were from Mechanical Engineering Department Diploma 3 Program of the second semester academic year 2011/2012. All participants took English in that semester. For the effect of multimedia on extrovert and introvert vocational students in developing their speaking skill was the main topic of this study, the result of students' speaking performance documents from both extrovert and introvert groups as the data for this study was used as data comparison.

The participants of this study were students of an English class in Mechanical Engineering Department of the institute. The samples were taken randomly from 70 students of whole academic year 2011/2012 Diploma Program of the department in the second semester. There was only a class of English, and all of the participants in the class were the experiment groups which divided into two groups; extrovert and introvert groups. Both of the groups were given the same treatment. There were 38 students from extrovert group, and 32 students from introvert group, thus all of the students in the class were involved in this research.

For English is consider as one of general subjects in the department, it makes all of the students of the academic year take the subject in the same semester. So, all of the research activities were done in the same classroom. The class was conducted by the same lecturer. They did all the activities under the same supervisor. The class started from 09.10 and lasted at 10.50 in the morning; it was 100 minutes each meeting for 3 or 4 weeks (3 or 4 times meetings). All the participants had the same materials and instructions, and they also had the same questionnaire, pretest, and posttest.

The data was collected in several steps in doing this study. The first step was pretest. Pretest is done to know the students capability in speaking. Pretest is used to know what the students have already known about the subject that is going to learn. It is stated by Kelly (2012), "Pretests are given to students before a lesson or unit to assess what they do in fact already know." From the dictionary of Merriam Webster stated that pretest is a test to evaluate the preparedness of students for further studies (Webster, 2011). While posttest does a test that is used to know the students understand on what they have learned. It is given after a certain period of time. From The American Heritage Dictionary of the English Language (2000) stated that post-test is a test given after a lesson or a period of instruction to determine what the students have learned.

In this research, pre and post tests are done orally. Pretest is done at the beginning of the research by giving speaking assignment, individually. They told about themselves, for examples, they told about their daily activities, their experiences, or about their impression of an event, someone or something. After that the students were given the same treatment for two weeks using multimedia. After two weeks, they had the same post-test, still it was an oral test, and the topics were on explaining and describing something. The students choose their

own topics. After obtaining both pretest and posttest scores, the scores counted to find the gained scores. The gain scores shows that there is significant effect of multimedia occurred after the treatment.

The next step is giving questionnaire. Questionnaire was used to know which students are extroverts and which are introverts. Before they fill in the questionnaires, they will be given some instructions about the way of filling it. After the participants finished filling the questionnaires, the questionnaires are analyzed and make lists of the extrovert and introvert participants separately. The lists will be used to record their scores of pre-test and post-test. It is done to compare the result of the tests more easily.

It was a psychological test because it is about the students' personality types. In filling or answering the questions in the questionnaire the students will write their personal identity like name and student number. It consists of some psychological questions about their personality types. There are 20 items of closed questions or statements that have to be answered with 'true' or 'false' by giving check mark (✓) in the column. The questionnaire was taken from a web site. It was chosen based on the research result of Nettle's Personality Test (Chapter II) on extroverts and introverts test. For it was a psychological matter, the questionnaire consulted to the expert that is Mrs. Nevi Kurnia Arianti, S. Psi., M. Psi. It was chosen because the answers were clear and very strict.

The questionnaire is made by Susan Cain, and it is a multiple choice which needs true or false answers. It makes students give certain answer choices. There are 20 statements that have to be answered. The questionnaire contains habitual actions which the students usually do and the students' psychological characteristics. Based on their answers of the statements, they are able to be grouped into extroverts and introverts. Of course there is difference in number. Extroverts are 38 and introverts are 32. The data collected (qualitative) was changed into numbers (quantitative) when statistical data processed. It kept the students personality identity confidential. Then they were written as participant 1, participant 2, and so on.

This research is an experimental research, and it is a true experimental research for the implication of this research is to find out whether there is any significant effect of multimedia on extrovert and introvert vocational students in developing their speaking skill. It usually uses quantitative method.

This study use questionnaire which used to decide the experimental groups. It was a psychological questionnaire. The questionnaire was analyzed to categorize into extrovert and introvert groups. Both groups were experimental groups. They had the same treatment of using multimedia.

Pretest was given after the students had their first topic about Past Tenses. The students had to apply the material on telling their past experience. After the pretest the students had the treatment using multimedia products (series of static pictures, animated pictures and mini videos); then they were asked to choose their own topics which was based on their major. Both pre and posttests data were used to validate the research findings. All findings were analyzed and validated quantitatively using IBM SPSS. Thus the significance of the research result can be seen clearly. Shuttleworth (2013) said that true experimental design is regarded as the most accurate form of experimental research, in that it tries to prove or disprove a hypothesis mathematically, with statistical analysis.

Referring to the problem of this study, whether there is any significant difference in the effect of multimedia on extrovert and introvert vocational students in developing their speaking skill, the analysis presented were the answers of the research question and hypothesis proposed in this study. The hypothesis are: 1). There is not any difference effect of multimedia on extrovert and introvert vocational students in developing their speaking skill ( $H_0: \mu_1 = \mu_2$ ), and 2). There is a significant effect of multimedia on extrovert and introvert vocational students in developing their speaking skill ( $H_1: \mu_1 \neq \mu_2$ ). The discussion is based on the research design implemented in this study, experimental research means quantitative design.

This research is experimental research. The research data presentation and analysis are quantitative data. The data are presented and analyzed to show how the research question was solved in this research. The presentation and analysis of the data are displayed using numbers.

The result of this study is the gain scores of the two experimental groups, extrovert and introvert groups. From the result, the significant effect of multimedia on extrovert and introvert vocational students on developing their speaking skill was easily observed. The independent sample t-test was used as there were two variables between groups observed. The analysis of the scores is based on the pre-tests and post-tests of the two groups that aim to test the hypothesis. The data analysis was done using IBM SPSS 19.0, statistic software.

The independent sample t-test was conducted by the use of the gain score in gathering the data. The t-test allows the examination of the difference between the mean scores relative to be spread or variability of the scores which could not be showed by the descriptive statistics only. It was applied to examine if the mean of the two groups of data are significantly different. The t-test indicates the sample difference from the population by the use of means and the distribution of sample scores. The data analysis was done using IBM SPSS 19, and the descriptive statistics showed below. Descriptive statistic gives depiction or description of data which is seen from its mean, standard deviation, variant, maximum, minimum, sum, and range (Ghozali, 2011). Table 1 shows the descriptive statistics data of extrovert and introvert pre and post tests.

**Table 1.** Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Extrovert pre test	38	3.5	4.0	7.5	193.5	5.092	1.1960	1.430
Extrovert post test	38	4.0	4.0	8.0	224.5	5.908	.9143	.836
Introvert pre test	32	3.5	4.0	7.5	153.5	4.797	1.0069	1.014
Introvert post test	32	4.0	5.0	9.0	189.0	5.906	.9370	.878

The table shows that the extroverts' pre-test value of the number of respondents 38 people, the lowest value was 4.0 and the highest value was 7.5. The average value was 5.092; standard deviation was 1.196 and the variance was 1.430. The extroverts' posttest value of the number of respondents 38, the lowest value was 4.0, the highest value was 8.0, the average value was 5.908, the standard deviation was 0.9143 and the variance was 0.896.

The introverts' pretest value of the number of respondents 32 people, the lowest value was 4.0, the highest value was 7.5, the average value was 4.797, the standard deviation was 1.0069 and the variance was 1.014. The introverts' posttest value of the number of respondents 32 people, the lowest value was 5.0, the highest value was 9.0, the average value was 5.906, and the standard deviation was 0.937 and the variance was 0.878.

The above data shows that the value of extroverts pretest and posttest has different average value, that is the increase of mean value of the mean pretest was 5.092 and the mean posttest 5.908. The above data also shows that the value of introverts pretest and posttest has different average value, that is the increase of mean value of the mean pretest was 4.797 and the mean posttest 5.906.

To find out how the difference between the extrovert and introvert test values, here is the following analysis of hypothesis:

### 2.1 Test different values for pretest

Test of different values for pretest in IBM SPSS 19, output is obtained as follows:

**Table 2.** Group Statistics

	pre_test	N	Mean	Std. Deviation	Std. Error Mean
Value	Extrovert	38	5.092	1.1960	.1940
	introvert	32	4.797	1.0069	.1780

**Table 3.** Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Value	Equal variances assumed	2.744	.102	1.105	68	.273	.2952	.2672	-.2380	.8285
	Equal variances not assumed			1.121	68.000	.266	.2952	.2633	-.2302	.8206

Analysis:

The first part output (groups statistics)

It is seen that the average value of the pre-test on extrovert respondents is 5.092 while the average value of the pre-test on introvert respondents is 4.797. absolutely, it is clear that the difference between the average value of the pre-test of extrovert and introvert respondents. The differences are statistically significant, and should be tested using independent sample test in the second table above (Table 3).

The second part output

There are two steps that must be done as follows:

- a. To test whether the two populations variance are equal (equal variance assumed) or is it different, based on the value of Lavene test.
- b. To see the t-test to determine whether there are differences in the average value significantly.

The Lavene's Test for Equality of Variances is provided to represent a test of the hypothesis that the two populations are identical or not, with the following hypothesis:

Ho: the pre test population variance value of extrovert and introvert are the same.

H1: the pre test population variance value of extrovert and introvert are different.

Decision-making:

If significant figures (sig.) > 0.05 then Ho is accepted

If significant figures (sig.) < 0.05, then Ho is rejected

On the SPSS output can be seen that F count Lavene test of 2,744 with probability 0.102 (sig. = 0.102), because the probability of 0.102 > 0.05, so it can be concluded that Ho is accepted, meaning in the above data there are variance similarities between pretest value data for extrovert and pretest value data for introverts. On the next step is test using different t-test assuming equal variance assumed as follows: on different test of t-test in this case is to test the average similarity between extrovert pretest value and introvert pretest value.

From the output is seen that on the equal variance value assumed that the value of t = 1.105 with significance probability 0.273 (two tail). Because the probability sig. = 0.273 > 0.05; it was concluded there was no real difference between the average value of the pre-test on introvert and extrovert or did not differ significantly.

## 2.2 Test different values for the posttest

The obtained output using SPSS as follows:

**Table 4.** Group Statistics

	Post_test	N	Mean	Std. Deviation	Std. Error Mean
Value	Extrovert	38	5.9079	.91427	.14831
	Introvert	32	5.9062	.93703	.16564

**Table 5.** Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Value	Equal variances assumed	.050	.824	.007	68	.994	.00164	.22187	-.44108	.44437
	Equal variances not assumed			.007	65.408	.994	.00164	.22234	-.44235	.44564

Table 5 presents that the output variance equality tests with Levenne method sig.: 0.824, with alpha 0.05, sig. = 0.824 > 0.05: alpha so there are similarities in the variance of the data values for post-test and posttest extrovert and introvert.

In the equality test between the average posttest score for the extrovert and introvert posttest, the output obtained with t = 0.007 sig. = 0.994, because the number sig. = 0.994 > 0.05: alpha, it was concluded there was no real significant difference between the average value of the posttest on extroverts and introverts posttest value as presented in table 5.

### 2.3 Corelation tests of different value of pre and post tests

The mean test on extrovert and introvert scores between pre-test and post-test using SPSS IBM 19, the output obtained is as follows:

**Table 6.** Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Extrovert post- test	5.908	38	.9143	.1483
	Extrovert pre- test	5.092	38	1.1960	.1940
Pair 2	Introvert post- test	5.906	32	.9370	.1656
	Introvert pre- test	4.797	32	1.0069	.1780

**Table 7.** Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Extrovert post- test & Extrovert pre- test	38	.861	.000
Pair 2	Introvert post- test & Introvert pre- test	32	.842	.000

**Table 8.** Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Extrovert posttest - Extrovert-pretest	.8158	.6197	.1005	.6121	1.0195	8.115	37	.000
Pair 2	Introvert posttest - Introvert pretest	1.1094	.5497	.0972	.9112	1.3076	11.416	31	.000

From the output can be explained that, in the paired samples statistics table describes that the data of extrovert consists of 38 samples data and data of introvert consists 32 samples which analyzed, as well as the statistical value of each variable (Table 6)

Table paired samples correlations shows:

a. In pair 1:

The correlation value between the pretest and posttest of extrovert is 0.861 and the value of sig. = 0,00 means smaller than alpha: 0.05. It states that the correlation between the value of the pre and post tests of extrovert are significant, meaning the average values of both respondents on pre test and post test are significantly different.

It can be seen that sig. = 0.000 < 0.005: alpha, then the value of pretest and posttest of extrovert significantly different.

By comparing the t and t table, as follows:

T count = 8.115 with df. = 37. And from t table obtained t values (0.05; 37) = 1.692. Because t = 8.115 > t table = 1.692 then there is a significant effect in the presence of multimedia on the extrovert respondent (Table 7).

b. In pair 2:

Correlation values between the pretest and posttest of introverts is 0.842 and the value of sig. = 0.00, means smaller than alpha: 0,005. It states that the correlation between the value of the pre and post tests of introvert are significant, meaning the average value of the two respondents on pretest and posttest are significantly different.

It can be seen that  $\text{sig.} = 0.000 < 0.005$ : alpha, then the average value of pretest and posttest of introvert significantly different.

Or by comparing the  $t$  and  $t$  table, as follows:

$T$  count = 11.416 with df. 31. And from  $t$  table obtained  $t$  values  $(0.05; 31) = 1.697$ . Because  $t = 11.416 > t$  table = 1.697, then there is a significant effect in the presence of multimedia on introverted respondent (Table 8).

### **3. RESULT AND DISCUSSION**

The result shows that there is a significant difference from the gain scores that obtained from the pretest and posttest using IBM SPSS 19 statistical analysis. The  $t$ -test shows that there is a significant difference effect of multimedia on extrovert and introvert vocational students on developing their speaking skill. There is a positive effect on using the media.

Experimental research was done to observe and find out if there is a significant difference effect of using multimedia on the students' progression in developing their speaking skill. The research result shows that there is a positive advantage to both extrovert and introvert experimental groups. It can be seen that  $T$  count = 8.115 with df. 37. And the values obtained from the  $t$  table  $t(0.05, 37) = 1.692$ . Because  $t = 8.115 > t$  table = 1.692, then there is a significant effect in the presence of multimedia on the extroverted respondents. And  $T$  count = 11.416 with 31 df. And the values obtained from the  $t$  table  $t(0.05, 31) = 1.697$ . Because  $t = 11.416 > t$  table = 1.697, then there is a significant effect in the presence of multimedia on the introverted respondents.

### **4. CONCLUSION**

The goal of this research is to find out the effect of multimedia on extrovert and introvert vocational students on developing their speaking skill. The independent sample  $t$ -test is used to gain the difference from the two groups, extrovert and introvert. The statistical result shows that the score difference was significant. It means that there is significant effect of multimedia on extrovert and introvert groups in developing their speaking skill as seen from the score improvement from the beginning of the research and the test after the treatment. The scores are increased, better than before.

From this study, it can be concluded that the use multimedia on learning teaching speaking give positive effect to both of the experimental groups. And from the statistical measurements, it is also found that one of the experimental groups has more advantage than another one. Introvert group has higher score than extrovert group. The effect of multimedia technique shows more significant effect to introvert students on developing students speaking skill rather than extrovert students.

Referring to this modern age situation and the need of qualified employee candidates in industrial and global work market, university and lecturers (especially English lecturers) should be aware of using this high technology product as one of alternatives on varying English learning teaching activities. It needs collaboration of the institution, lecturer and researcher on digging out the effectiveness use of technology and its product for language learning teaching activities in order to stimulate and motivate students' anxiety to perform their ability to use English in their daily activities or specific occasions like international seminars or other events better.

### **ACKNOWLEDGEMENT**

Thank God that we have been blessed with the family, the friends, the colleagues, and the personal wherewithal to complete this seminar paper. Thank all whose names cannot be mentioned one by one here. May God be with us.

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