THE EFFECTS OF GRAMMAR MASTERY AND CRITICAL THINKING ON STUDENTS’ SPEAKING SKILL

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Abstract

The purpose of the research is to obtain empirical data and analyze about whether or not there are the effects of grammar mastery and critical thinking on students’ speaking skill. The research was conducted at the state senior high school in Serang. The research method was survey with multiple-correlation technique. 80 students out of the state senior high school, grade X were chosen to be samples. Data collections include 1 questionnaires and 2 multiple-choice tests. The scale used for questionnaire was Likert Scale. The validity was calculated by using Person-Product Moment, and reliability obtained from Cronbach Alpha is 0.713. Research findings show three points. Firstly, there are significant effects of grammar mastery and critical thinking towards students’ speaking skill where multiple-correlation coefficient (R) is 0.696 in significance grade 5\% (\(\alpha = 0.05\)) further F\(_{\text{observed}}\) is higher than F\(_{\text{table}}\) (36.202 > 2.735). Secondly, there was a significant effect of grammar mastery and students’ speaking skill even though the effect is slightly weak where r\(_{y1}\) is 0.365, t\(_{\text{observed}}\)=3.725>t\(_{\text{table}}\)=1.994 with Sig score is lower than significance grade (0.000 < 0.05). Thirdly, there is a significant effect of critical thinking and students’ speaking skill where r\(_{y2}\) is 0.626, t\(_{\text{observed}}\)=7.242>t\(_{\text{table}}\)=1.994 with Sig score lower than the significance value (0.000 < 0.05).

Keywords: Grammar mastery, Critical thinking, Speaking skill

Introduction

Mastery of English is obtained through a variety of teaching programs in schools. Experience showed that the results of learning English at school in Indonesia are still far from desire goals. One of the main problems in learning English in formal education at school today is not learnt well by the students, as if English is still regarded by frightening specter. Evidently can be seen by the result of the students learn, they cannot master their English well. This accomplishment, of course, teaching learning activities are still using conventional, so it does not touch the students’ need. It means learning the language is still dominated by the teacher centered and does not provide the access for students to develop independently through critical thinking process. In many curriculum documents, the teachers need to encourage or require to develop their students’ critical thinking, it is hoped to the students how to used their cognitive skills maximize, such as remember, comprehension, application, Analysis, synthesis, and evaluation. All of these called cognitive domain Bloom’s Taxonomy, it makes students using their language with accuracy, clarity, and discernment.

English in Indonesia is regarded as a foreign language for many periods of time. Many people believed that mastery of a foreign language would give a great benefit to one’s personal needs and professional demands. In order to master a new foreign language, learners should therefore have adequate skills that would be helpful in learning process.
As we know, English has for basic skills, including reading, listening, speaking, and writing. All four skills are important to be learnt. In this case, for Indonesian’s students who study English is rather difficult to learn, because English grammar has both time adverbs and tenses, whereas Indonesian grammar has only the time adverbs but not the tenses. (Sabroni Rachmadie dkk, 1999: 214).

Language skills are closely related to the ability to think. Learning language often reflects his thoughts. The more ones’ critics think the brighter and the clearer way of thinking this ability can be obtained with practice and guidance. Similarly, with speaking skill that has to be obtained by the process of learning or practicing perseverance. Speaking skill must be applied in everyday life. On the other word, it should diligently study and practice. Good speaking will produce a good public speaking if is supported by good in grammar.

Grammar is the science of language. As every field of study depends on its own rules to evolve, language has its own rules defined under the cute name of “Grammar.” Grammar hails from grammaire (French), grammatikos (Greek), or grammatica (Latin), all meaning “relating to letters,” according to the Oxford Concise Dictionary.

Why we require grammar to our speaking is often disputed. Spoken communication usually expands outside the boundaries of grammar and draws its own territories, usage rules of speech. Written language, however, retains the same old forte of usage rules, and ever since showed inhibition to come out.

Spoken language is used by the speaking lot in millions, while written language is the realm of writing lot, in thousands. In a world of entropy (disorder), it is easier to assume that there are more disorganized people in a million than in a thousand; moreover, the recognized writers are authorities of language, who get published and become famous for the sheer excellence of their language. A language is more elegant, beautiful, and legible when it goes by the rules of grammar, usage, and style. While everyone of these is equally important, slips in grammar makes it all worthless. Proper grammar enables you to publish content online or offline with reputed publishers. That itself is a reward, even if you don’t earn much by publications.

The lack of knowledge of grammar will result in the grammatically incorrect sentences which can lead to misunderstanding of what one is saying or writing. Further, knowledge of grammar is important in comprehension because complexity of grammar can cause difficulty. A simple clause is easier to understand than a complex cause. If there are more complex clause that simple clauses, the complexity of the text in the term of grammar is high. Readence (1985) stated that reading a text is an interactive process of the grammar competence owned by the reader.

Grammar mastery is the mastery of formal rules concerning word forms and application of words in a sentence to create correct and meaningful sentences. Grammar mastery is the understanding of sentence structure, sentence element, and also includes the understanding of simple clause and complex clause. In this research, the researcher discusses grammar as the system of rules of forming words and combining them into sentences.

Riemsdijk and William (1986:4) says that the system or set of principles from putting words together into sentences is called grammatical rules. A sentence consists of three things; sound meaning, and syntactic structures. In other words, grammar in the rule for putting sounds, meaning and syntactic structures together to make meaningful sentences.
Richards (1985) argues that the factors involved in knowing a language are grammatical competence, communicative competence, and language proficiency. Gerot and Wignell (1994:2) explains that grammar is a theory of language, of how language is put together and how it works. More particularly, it is the study of wordings. In a sentence such as Time flies an arrow, this string of language means something; the meaning is accessible through the wording; that is the words and their order and the wording in turn, is realized or expressed through sounds or letters. All languages in use can be analyzed at four levels; text, sentence, word and sound. These are the forms that language takes. The study of grammar consists, in part, of looking at the way these forms are arranged and patterned. It is partly the study of what forms (structures) that are possible in language. It concerns almost exclusively with the analysis at the level of sentences. Thus, it is a description of the rules that govern how language’s sentences are formed.

Brown (2001:362) ascertains that grammar is the system of rules governing the conventional arrangement and relationship of words in a sentence. The components of the words (prefixes, suffixes, roots, verb and noun endings, etc.) are parts of grammar. Technically, grammar refers to sentence level rules only, and not the rules governing the relationship among sentences which refer to discourse rules.

From a foreign learner’s point of view, the major difficulty in English grammar is the difference between pronunciation and written forms. Otherwise, English is a language that can be acquired more rapidly in the early stages than many others. In intermediate and advanced stages, however, everything becomes more confusing because rules are complicated by idiomatic expression.

Critical thinking covers all types of thinking, including creativity. The word ‘critical’ simply means ‘important’, in the sense of a critical issue or a critical area. The word ‘critical’ comes from the Greek kritikos, which means ‘judge’. So critical thinking is judgement thinking, and that is the usual meaning of the word.

Critical thinking is a cognitive activity, associated with using the mind. Learning to think in critically analytical and evaluative ways means using mental processes such as attention, categorization, selection, and judgment.

However, many people who have the potential to develop more effective critical thinking can be prevented from doing for a variety of reasons apart from a lack of ability. In particular, personal and emotional, or ‘affective’, reasons can create barriers. Critical thinking is considered important in the academic fields because it enables one to analyze, evaluate, explain, and restructure their thinking, thereby decreasing the risk of adopting, acting on, or thinking with, a false belief.

According to Stella (2005: 2) Critical thinking is a complex process of deliberation which involves a wide range of skills and attitudes, it includes: identifying other people’s positions, argument and conclusions, evaluating the evidence for alternative points of view, weighing up opposing arguments and evidence fairly, being able to read between the lines, seeing behind surfaces, and identifying false or unfair assumptions, recognizing techniques used to make certain position more appealing than others, reflecting on issues in a structured way, bringing logic and insight to bear, drawing conclusion about whether arguments are valid and justifiable, presenting a point of view in a structured, clear, well-reasoned way.

By defining critical thinking is a complex process that including argument, identifying, evaluating, recognizing, reflecting, presenting a point of view, can be thought of as the message
is being conveyed whether through speech, writing, performance, and identify the hidden message more accurately and understand the process constructed.

The whole of human history is built upon communication. From the first story told in prehistoric times through the mass media of today, verbal communication has built the foundation of who we are, where we came from, and what we hope to become. Throughout time, many orators, philosophers, and educators have tried to capture the essence of human communication. Although a true understanding of the complexity of communication takes years of examination, the researcher has tried to offer a brief highlight of some of the major contributors. Nunan (2000:39) states that speaking is one of the key aspects of learning a second or foreign language. In addition, he notes that the success of language learning is measured in terms of being able to conduct a conversation in the target language. The ability to speak fluently can be said to be essential in language learning to communicate inside or outside of the classroom.

According to Yorkey (1990:4), speaking skill is a skill and like other skill, it must be practiced continuously. The teacher role is becoming important for students later. There are many keys to support speaking skill by listening cassette, watching TV, watching film, practicing with foreigners, practicing with partners. In judging whether students are speaking in correct statements.

Speaking is a form of communication. It means that speaking a kind of communication which is conveyed orally. It is certainly that the process of it involves two sides, the speaker and the listener who may function interchangeably. When the speaker produces utterances sent to the listener, he/she may function as a speaker. Otherwise, when the listener gets turn to give responses, he/she may function as a speaker. In short, it may be said that speaking has the similar meaning to oral communication.

Method
The research was conducted in the state senior high school in Serang. The selected schools are SMAN 1 Baros, SMAN 1 Pabuaran, SMAN 1 Cikande, and SMAN1 Ciomas. This study emphasizes on the effects of grammar mastery and critical thinking altogether towards students’ achievement in speaking skill. It means there are two independent variables and one dependent variable; variable X_1 as the first independent variables (grammar mastery) and variable X_2 as the second independent variables (critical thinking) which have interconnected and influenced the variable Y as the dependent variable (students’ speaking skill). The method used is a survey with multiple-correlational technique.

Independent variable is the variable selected, manipulated and measured by researcher. Fraenkel and Norman (2003:43) point out that in independent variable the researcher chooses to study in order to assess their possible effects on one or more other variables and it is presumed to affect or somehow influence, at least one other variable.

The population in this research is all state senior high school grade ten in Serang. Sugiyono (2008:117) states that population is an area of generalization which comprises object or subject that has quality and certain characteristic determined to be analyzed and then made a conclusion by researcher. Furthermore, Fraenkel and Norman (2003:96-97) find out that population is the larger group to which one hopes to apply the results. In other words, it is the group of interest.
to the researcher, the group to whom the researcher would like to generalize the results of the study.

The sampling technique used for this survey research is a cluster-simple random sampling; taking a sample in cluster, random, and simple ways. It is done because of the wide area and a great deal of population. According to Fraenkel and Norman (2003:97), sampling refers to the process of selecting individuals. Sample in a research study refers to any group on which information is obtained. While Sevilla (2006:167-168), the cluster-simple random sampling is used in which related to a geographic location of respondents where they are in one school selected randomly as a cluster and regarded that they have an equal position for relevant characteristics towards examined variables.

In choosing sample, the writer chooses 20 students in each selected school become samples. As a result, 80 students in grade ten in the second semester of 2017/2018 academic year to be samples in this survey research.

The sample is 80 students who are given a questionnaire and two tests in multiple-choice form. The questionnaire is about reading habit consisting of 20 statements with 5 options (Strongly Agree, Agree, Neither Agree nor Disagree, disagree, and Strongly Disagree), ten in positive statements and 10 in negative statements. For the tests in multiple-choice forms are vocabulary mastery and reading comprehension. Both vocabulary mastery and reading comprehension are tested in 20 problems with 5 options (A, B, C, D, and E). The results of the reading habit questionnaire, the vocabulary mastery, and the reading comprehension are analyzed with to ($t_{\text{observed}}$) in significance grade 5 % ($\alpha = 0.05$) and degree of freedom (df) = n-2.

In survey research, the tendency central frequency by counting frequency distribution, mean (Average of all scores in a data set), median (score at center of distribution), standard deviation, and variance will be cultivated. Hypotheses testing ($t_{\text{observed}}$) can be counted afterwards. The researchers then made linearity and normality tests. All the data were calculated by using SPSS version 19.0.

**Research and Discussion**

The researcher analyzes the data from both the questionnaire and the tests. Data are taken from critical thinking, grammar mastery and reading comprehension test out of 80 respondents where all the data are valid and reliable. The aim of the analysis is to find out and give the information of the research findings based on the data and variables of the research subject. Therefore, all data will be analyzed by using Statistical Program for Social Science (SPSS) version 19.0 in order to get results of the relationships among variables.

The descriptions of the data of grammar mastery ($X_1$), critical thinking ($X_2$) and students’ Speaking skill ($Y$) will be specifically depicted in the following:
Table 1. The Data Description Result

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Grammar Mastery</th>
<th>Critical Thinking</th>
<th>Students’ Speaking Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>62.28</td>
<td>78.83</td>
<td>79.19</td>
</tr>
<tr>
<td>Median</td>
<td>62.00</td>
<td>82.50</td>
<td>75.00</td>
</tr>
<tr>
<td>Mode</td>
<td>62</td>
<td>85</td>
<td>70</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>4.031</td>
<td>13.168</td>
<td>11.453</td>
</tr>
<tr>
<td>Variance</td>
<td>16.274</td>
<td>173.402</td>
<td>131.167</td>
</tr>
<tr>
<td>Skewness</td>
<td>-.003</td>
<td>-.492</td>
<td>-.396</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.269</td>
<td>.269</td>
<td>.269</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-.232</td>
<td>-.625</td>
<td>.203</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>.532</td>
<td>.532</td>
<td>.532</td>
</tr>
<tr>
<td>Range</td>
<td>18</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Minimum</td>
<td>52</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Maximum</td>
<td>70</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Sum</td>
<td>5014</td>
<td>6390</td>
<td>6255</td>
</tr>
</tbody>
</table>

1. The Data Analysis of Grammar Mastery (X1)

Out of 80 respondents, it is known that the scores are in the range 52 to 70. Meaning that the minimum score is 52 and the maximum score is 70. In addition, mean (average of all scores in the data) can be concluded that the tendency of respondents to do the test grammar mastery is in the position 62. Meanwhile, standard deviation is 4.031 and variance is 16.247. Mean is 62.68, median (score at centre of distribution) is 62.00 and mode (most frequently score in the data set) is 62.

Further, the following frequency histogram illustrates the distribution of grammar mastery test scores.
According to the graph above, it shows that a total number of respondents are 80, mean is 62.68 and standard deviation is 4.031. The standard deviation forms a normal curve. Meaning that the curve is neither too sharp nor too flat. As a result, it is called mesocurtic with kurtosis -0.232. In addition, the curve angle in the negative position or the curve tail is more in the left side than in the right side with skewness -0.003.

2. The Data Analysis of Critical Thinking (X2)

Data of students’ critical thinking taken from questionnaire. Out of 80 respondents, it is known that the scores are in the range 50. It means that the minimum score is 50 and the maximum score is 100. In addition, mean (average of all scores in the data set) is 79.88, median (score at center of distribution) is 82.50 and mode (most frequently obtained score in the data set) is 85.

Next, to get to know it clearly we can describe the data range of the students critical thinking variable through the table below. Based on the table, it can be seen the description about the high and low of critical thinking frequency.

According to the graph below, it shows that a total number of respondents are 80, mean is 79.88 and standard deviation is 13.168. The standard deviation forms a normal curve. Meaning that the curve is neither too sharp nor too flat. As a result, it is called mesocurtic with kurtosis -0.625. In addition, skewness -0.492 shows a negative angle distribution because the left tail is longer than the right tail.

From the distribution table, histogram and polygon frequency we can draw a conclusion that the data score of logical thinking in this research has a normal distribution.

3. The Data Analysis of Speaking Skill (Y)

Data of students speaking skill taken from a test. The test consists of 20 problems in the multiple-choice form. Out of 80 respondents, it is known that the scores are in the range 50 to 100. Meaning that the minimum score is 50 and the maximum score is 100. In addition, mean
The Effects of Grammar Mastery and Critical Thinking on Students’ Speaking Skill

(Average of all scores in the data set) is 78.19, median (score at centre of distribution) is 75.00 and mode (most frequently obtained score in the data set) is 70.

According to the graph 3, it shows that a total number of respondents are 80, mean is 78.19 and standard deviation is 11.453. The standard deviation forms a normal curve. Meaning that the curve is neither too sharp nor too flat. As a result, it is called mesocurtic with kurtosis 0.203. In addition, skewness -0.396 shows a negative angle distribution because the left tail is rather longer than the right tail.

4. Relation of Regression Line Linearity between Variable X₁ within Variable Y

The result calculation of the relation of the regression line linearity between variable X₁ within variable Y can be seen in the Table 2.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ Speaking Skill * (Combined)</td>
<td>2099.294</td>
<td>15</td>
<td>139.953</td>
<td>11.479</td>
<td>.000</td>
</tr>
<tr>
<td>Students’ Speaking Skill Between Groups Linearity</td>
<td>1979.611</td>
<td>1</td>
<td>1979.611</td>
<td>162.375</td>
<td>.000</td>
</tr>
<tr>
<td>Students’ Speaking Skill Deviation from Linearity</td>
<td>119.683</td>
<td>14</td>
<td>8.549</td>
<td>.701</td>
<td>.765</td>
</tr>
<tr>
<td>Grammar Mastery Within Groups</td>
<td>829.028</td>
<td>68</td>
<td>12.192</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2928.321</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. The Result Recapitulation of Regression Line Linearity Test Relation between Variable X₁ within Variable Y
The above table shown that the score in \textit{Sig} in line \textit{Deviation from Linearity} is 0.765 more than 0.05. It means that \( H_0 \) is accepted, in other word that regression line between variable \( X_1 \) and variable \( Y \) is linear.

5. Regression Line Linearity Relation Variable \( X_2 \) within Variable \( Y \)

The calculation of linearity regression line test relation between variable \( X_2 \) dengan variable \( Y \) can be seen in the Table 3.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
\textbf{ANOVA Table} & Sum of Squares & df & Mean Square & \textbf{F} & \textbf{Sig.} \\
\hline
(Combined) & 2430.974 & 47 & 51.723 & 3.744 & .000 \\
Students’ Speaking Between Groups & 1767.627 & 1 & 1767.627 & 127.948 & .000 \\
Skill * Critical Thinking Deviation from Linearity & 663.347 & 46 & 14.421 & 1.044 & .451 \\
Within Groups & 497.348 & 36 & 13.815 & & \\
Total & 2928.321 & 83 & & & \\
\hline
\end{tabular}
\caption{The Result Recapitulation of Regression Line Linearity Test Relation between Variable \( X_2 \) within Variable \( Y \)}
\end{table}

The above table shown that the score in \textit{Sig} in line \textit{Deviation from Linearity} is 0.451 more than 0.05. It means that \( H_0 \) is accepted, in other word that regression line between variable \( X_2 \) and variable \( Y \) is linear.

6. Test of Hypothesis

Test of Hypothesis is done based on What is written in chapter III. The result of calculation and test can be seen in Table 4, Table 5, and Table 6.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
\textbf{Model Summary} & & & & & \\
\hline
\textbf{Model} & \textbf{R} & \textbf{R Square} & \textbf{Adjusted R Square} & \textbf{Std. Error of the Estimate} & \\
\hline
1 & .696a & .485 & .471 & 8.328 & \\
\hline
\end{tabular}
\caption{The Calculation Result of Coefficient Correlation the Effect of Variable \( X_1 \) and \( X_2 \) toward Variable \( Y \)}
\end{table}

\textbf{Model Summary}:

a. Predictors: (Constant), Critical Thinking, Grammar Mastery

b. Dependent Variable: Students’ Speaking Skill
The Effects of Grammar Mastery and Critical Thinking on Students’ Speaking Skill

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5021.678</td>
<td>2</td>
<td>2510.839</td>
<td>36.202</td>
<td>.000b</td>
</tr>
<tr>
<td>1 Residual</td>
<td>5340.510</td>
<td>77</td>
<td>69.357</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10362.188</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Students’ Speaking Skill
b. Predictors: (Constant), Critical Thinking, Grammar Mastery

Table 5. The Result Recapitulation Significant Coefficient Regression Test the Effect Variable X2 within Variable Y

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-17.722</td>
<td>15.207</td>
<td>-1.165</td>
<td>.247</td>
</tr>
<tr>
<td>1 Grammar Mastery</td>
<td>.870</td>
<td>.234</td>
<td>.306</td>
<td>3.735</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>.518</td>
<td>.074</td>
<td>.595</td>
<td>7.242</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Students’ Speaking Skill

Table 6. The Result Recapitulation of Equation of a Regression Line Calculation the Effect of Variable X1 and X2 toward Variable Y

7. The Effect of Grammar Mastery (X1) and Critical Thinking (X2) on Students’ Speaking Skill (Y)

To see how far the effects of grammar mastery and critical thinking towards students’ speaking skill, the multiple correlation coefficients is used to measure and analyzed them. On the basis of the table 4, ryx1x2 is 0.696. It indicates that among variables have very strong effects. Meanwhile, grammar mastery and critical thinking variables contribute to speaking variable is 48.5% (R² x 100% or 0.485 x 100%) and the rest is 51.5 % determined by the other factors.

Significance test by comparing significance grade (α = 0.05) with significance probability level (Sig score = 0.000) is obtained significance grade is higher than significance probability level (0.05 > 0.000). As a result, H1 is accepted. Meaning that there are positive and significant effects of grammar mastery and critical thinking towards students’ speaking skill.

On the basis of the table 4, it is obtained F_observed is 36.202 and F_table is 2.735 (F(0.95)(3,76)) with significance probability level which is 0.000. Since significance probability level is lower than significance grade (0.000 < 0.05) then F_observed is higher than F_table (36.202 > 2.735), therefore, the regression model can be used to predict the ability of students speaking skill. Furthermore, the conclusion is much more convincing that grammar mastery and critical thinking brings significant effects to speaking skill.

Based on the coefficient test, the effects grammar mastery and critical thinking towards students’ speaking skill can be formulated in the following structural equality: Y = ρy1.X1 + ρy2.X2 + ρy ε1

\[
Y = 0.306.X1 + 0.595X2 + 0.718
\]

\[
R^2_{Y12} = 0.485
\]
ρ_{Y\epsilon} = \sqrt{1 - 0.485} = \sqrt{0.515} = 0.718

8. The Effect of Grammar Mastery (X₁) towards Students’ Speaking Skill (Y)

Based on the table 5, the correlation coefficient of Pearson Product Moment of the effects of grammar mastery towards students’ speaking skill is 0.365 or ρ_{Y1} is 0.365 (ρ_{Y1} = 0.365). According to Usman and Akbar (2009:201), if r = 0.21-0.40 is weak. Showing that the effects of two variables are weak. Furthermore, grammar mastery variable contributes to speaking’s skills variable is 13.22% (r^2 x 100% or 0.365^2 x 100%) and the rest is 86.78% determined by another variable.

Afterward, to determine the significance test, Sig score (1-tailed) should be compared with the significance grade (α = 0.05). Based on the table 4.21, it shows that Sig score (1-tailed) is 0.000 and t_{observed} is 3.725. Meanwhile, t_{table} in significance grade 5% with degree of freedom 78 (df = n-2) is 1.994. Since Sig score is lower than significance grade (0.000 < 0.05) and t_{observed} is higher than t_{table} (3.725 > 1.994) therefore there is a significant effect of grammar mastery towards students’ speaking Skill.

9. The Effect of Critical Thinking (X₂) on Students’ Speaking Skill (Y)

Meanwhile, to know how far the effect of critical thinking towards students’ speaking skill, correlation coefficient of Pearson Product Moment is used to measure them. Based on the table 4.21, ρ_{Y2} is 0.626. It indicates that the effect of two variables is quite strong. Furthermore, critical thinking variable contributes to students speaking skill variable is 39.19% (r^2 x 100% or 0.626^2 x 100%) and the rest 60.81% is determined by another variable.

Afterward, to determine the significance test, Sig score (1-tailed) should be compared with the significance grade (α = 0.05). Based on the table 4.21, it shows that Sig score (1-tailed) is 0.000 and t_{observed} is 7.242. Meanwhile, t_{table} in significance grade 5% with degree of freedom 78 (df = n-2) is 1.994. Since Sig score is lower than significance grade (0.000 < 0.05) and t_{observed} is higher than t_{table} (7.242 > 1.994) therefore there is a significant effect of critical thinking towards students’ speaking skills.

10. Interpretation of the Effect of Grammar Mastery and Critical Thinking on Students’ Speaking Skills

On the basis of calculated data, indicating that grammar mastery contributes more than critical thinking to reading comprehension. Dealing with grammar mastery, it has an important role to help a student understand the meaning of the words in students’ speaking skill. In addition, grammar mastery has also contribution to the ability of students’ even though it not as significant as critical thinking. From the questionnaire distributed, most students prefer watching western movies to reading either books, newspapers, magazines or novels. However, it still brings a significant effect to arouse student’s speaking skill. It can be concluded that there are significant effects of reading habit and vocabulary mastery towards reading comprehension since ρ_{X1X2} is 0.696. It indicates that among variables have very strong significant effects.

11. Interpretation of the Effect of Grammar Mastery on Students’ Speaking Skills

Observing from the result of data analysis, the effects of grammar mastery and speaking skills with Pearson Product Moment coefficient correlation is 0.365 (ρ_{Y1} = 0.365). It indicates
that the effects of two variables are weak. In addition, grammar mastery variable contributes to students’ speaking skill variable is 13.22% (r2 x 100% or 0.3652 x 100%) and the rest is 86.78% determined by another variable.

12. Interpretation of the Effect of Critical Thinking on Students’ Speaking Skills

Meanwhile, the effects of critical thinking and students’ speaking skill can be analyzed with Pearson Product Moment correlation coefficient. The result is 0.626 (r2 = 0.626). It indicates that the effects of two variables are quite strong. Furthermore, vocabulary mastery variable contributes to reading comprehension variable is 39.19% (r2 x 100% or 0.6262 x 100%) and the rest 60.81% is determined by another variable.

Conclusion

On the basis of computerized processing and data analysis, some following conclusions can be drawn. There are significant effects of grammar mastery (X1) and critical thinking (X2) towards students’ speaking skill (Y). It can be seen from the result of the multiple regression where the multiple correlation coefficient (R) is 0.696. It is obtained that Fobserved is 36.202 and Ftable is 2.735 (F(0.95) (3,76)). Since Fobserved is higher than Ftable (36.202 > 2.735). Therefore, H1 is accepted. In addition, the contribution is 48.5%.

There is a significant effect of grammar mastery (X1) towards student’s speaking skill (Y). The result is supported by the number of correlation coefficient of X1 to Y (ry1) is 0.365. It is obtained that tobserved is higher than ttable (3.725 > 1.994) with Sig score is lower than significance grade (0.000 < 0.05). It indicates that there is a significant influence even though it is weak. In addition, the contribution of X1 to Y is 13.22%.

There is a significant effect of critical thinking (X2) on students’ speaking skill (Y). The result is supported by the number of correlation coefficient of X2 to Y (ry2) is 0.626. It is obtained that tobserved is higher than ttable (7.242 > 1.994) with Sig score lower than the significance value (0.000 < 0.05). As a result, H1 is accepted. It shows that there is a quite strong influence between variables. In addition, the contribution of X2 to Y is 39.19%.

References
The Effects of Grammar Mastery and Critical Thinking on Students’ Speaking Skill


