GRAMMAR AND CRITICAL THINKING EFFECTS TOWARDS STUDENT’S WRITING SKILL AT SMK KSATRYA IN CENTRAL JAKARTA

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Abstract – This research was aimed to know Grammar and Critical Thinking Effects towards Student’s Writing Skill at SMA Ksatrya in Central Jakarta. The research was conducted in Central Jakarta, SMA Ksatrya, Cempaka Putih Barat with 100 samples. Data collection techniques were in the form of questionnaire (tests). First free variable was grammar (X1), The test form was the questionnaire (multiple choices) of 50 questions designed by the researcher. The material tested adjusts for the theoretical frameworks i.e. tenses in sentences and the need for the research. Second free variable was critical thinking (X2), the test form of the questionnaire (multiple choice) of 50 questions designed by own researcher tested. The form of material tested was designed by the researcher that appropriates theoretical frame work and the need for the research. The third variable is the dependent variable in the form of Writing Skills (Y). Based on collecting of data, processing and testing of hypotheses, it can be concluded that Grammar learned by the students had effect on the student’s writing skill, this was evidenced by t count = 0,654 and Sig. as big as 0,041<0,05, Critical thinking ability had effect on the student’s Writing Skill, this was evidence by t count = 0,446 and Sig. as big as 0,035<0,05. Grammar and critical thinking ability had effects on the student’s writing skill. This was evidence of the value both independent variables was f count = 43,765 and sig level at 0,045<0,05. So, there was any effects of Grammar and Critical Thinking Effects towards Student’s Writing Skill.

I. INTRODUCTION

Writing is the process of using symbols (letters of the alphabet, punctuation and spaces) to communicate thoughts and ideas in a readable formal. Generally, writing uses a pen/pencil (handwriting) or a keyboard (typing). With a pen/pencil people usually write on a surface such as paper or whiteboard. A keyboard is normally attached to a typewriter, computer or mobile device. Voice recognition programs allow those who cannot see or use their hands to have their thoughts transcribed. To write clearly it is essential to understand the basic system of a language. In English this includes knowledge of grammar, punctuation and sentence structure. Vocabulary is also necessary, as is correct spelling and formatting.

Writing is a form of communication that allows students to put their feelings and ideas on paper, to organize their knowledge and beliefs into convincing arguments, and to convey meaning through well-constructed text. In its most advanced form, written expression can be as vivid as a work of art. As children learn the steps of writing, and as they build new skills upon old, writing evolves from the first simple sentences to elaborate stories and essays. Spelling, vocabulary, grammar, and organization come together and grow together to help the student demonstrate more advanced writing skills each year.

This union of skills, however, is a very complex process, and there are few for whom these skills evolve easily. When mastery of these skills becomes an overwhelming obstacle for children, they are often diagnosed with a learning disability in written expression. Sometimes this is due to a lack of skills in a certain area, which can be due to the way the brain translates language. Often, but not always, a child with a disability in written expression will have similar difficulties with reading and/or oral language.

This disability looks different in every child, but the student will commonly have difficulty with spelling, punctuation, capitalization and learning basic grammar rules early on. As the child moves through the elementary school years and the demands placed on the student become more complex, different difficulties such as planning, organization, editing, and revising will often become apparent.

For these explanations above the writer would like to have research in teaching and learning English that relate to the title: Grammar and Critical Thinking Effects towards Student’s Writing Skill at SMA Ksatrya in Central Jakarta

II. Method Of Research

The research is conducted in Central Jakarta, SMA Ksatrya, Cempaka Putih Barat with 100 samples. Data collection techniques are in the form of questionnaire (tests). First free variable is...
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Second free variable is critical thinking (X2), the test form of the questionnaire (multiple choice) of 50 questions designed by own researcher tested. The form of material tested is designed by the researcher that appropriates theoretical frame work and the need for the research.

The third variable is the dependent variable in the form of Writing Skill s (Y), Dragnet data using essay tests writing by assigning tasks to students to write a descriptive essay. Furthermore analysis data through several steps analysis, they are:

1. Data description stage.
2. Test phase requirements analysis undertaken by performing the normality test to spread the incoming data through a questionnaire.
3. Stage of regression analysis between variables.
4. Hypothesis test.
5. Discussion phase of analysis, analytical testing is done by using the F test comparing the calculated value of F with F tables.

1. Correlation analysis
   a. The formula for computing the correlation coefficient
   Correlation coefficient formula used Pearson product moment correlation is:
   Where X is the primary data (independent variable) and Y is secondary data (dependent variable)
   The formula above is the correlation coefficient formula of single or partial, which is between one independent variable and one dependent variable.
   b. Double correlation (between two independent variables and one dependent variable).
   Independent variables are X1 and X2, dependent variable is Y, then the double correlation formula is (Sudjana, 1996: 385)
   Note:
   R y12 = Double correlation between independent variable X1 and X2 with variable Y
   r y1 = Partial correlation between independent variable X1 with dependent variable Y
   r y2 = Partial correlation between independent variable X2 with variable independent Y
   r12 = Correlation partial between independent X1 with independent variable X2
   c. Coefficient of Determination
   The coefficient of determination is to find how large percentage both variables (independent) cause factor, to affecting factor (dependent). In the present study is to determine how much influence the coefficient of determination, namely grammar and critical thinking (independent variable), towards the ability to write a description (dependent variable).
   Formula coefficient of determination (Sudjana 1996: 372) is:
   KD = r2 x100 %, r is correlation coefficient.
   2. Regression analysis
   a. The formula for computing the regression line equation.
   Regression analysis was intended to obtain a picture of how big the role of grammatical and critical thinking (independent variable) on the ability to write a description (dependent variable) regression equation is used least squares linear regression method.
   Regression line equation: Y = a + bx, namely:
   b = ; and a =
   Where X and Y, respectively, the average for the variables X and Y.
   b. Multiple regression equation (between X1 and X2 with Y).
   Regression equation used is equation least squares method of linear regression formula is (Sudjana, 1996: 314)
   Regression equation linier: where a0, a1, and a2 are completion system equation.
   Or if and where are average for x1x2 and y variable, so a0, a1, and a2 can count with formula:
   a0 : a1 : a2 :
   3. Test of Regression
   a. Linier regression test.
   Test of linier regression line in this study used the F test, the formula is as follows:
   F = where
   JK (TC) = JKres – JK (E) called the sum of the squared discrepancy.
   JK (E) = , called the sum of the squares error, while K is re-grouping of data x according to certain criteria
   JKres = called the residual sum of squares, called the square regression and JK (a) = , called the sum of squares.
   Regression (a)
   F value obtained is called F of the count and will be compared with the value F of the table (Ftable) for α = 5% and K = 34 linear criteria is that if F of the count <Ftable then the linear regression line.
   b. Test of success (significance) regression.
   (for research with regression). For testing significance of regression coefficients is done through the following hypothesis:
   H0: O2 = 0 means no significant effect between grammatical mastery and critical thinking on Writing Skill s.
   H1: O2> 0 means that there are significant effects between grammar and critical thinking on Writing Skill s. The hypothesis was tested with Fisher formula (F) for the real level (α) = 5%, numerator dk = 1, and denominator dk = 2.
   Fcount formula used is: Fcount = , where called sum of squares regression called the residual sum of squares. Criterion of significance
is if Fcount > Ftable then H0 is rejected, other things H0 is accepted.

3. Sense test (significance) multiple regression (between Y with X1 and X2).
   Sense test (significance) multiple regression coefficients in this study used analysis of variance test (ANOVA) for the real level 5% and degrees of freedom (dk) the numerator \( K = 2 \) (corresponding to the number of independent variables) and denominator \( (n-k-1) \), the formula are as follows (Sudjana, 1996: 326), where called sum of squares regression dan called the sum of the squares of residuals, and is based on the calculation of the value of y corresponding regression equation obtained. F value obtained is called the value Fcount. The test criteria is if Fcount > Ftable the regression coefficient is significant.

III. RESULTS AND DISCUSSION

B. Test of Analysis Data Requirements
1. Normality test
   Normality test is intended to test the form of data distribution. If the data are normally distributed, then for the subsequent analysis can be used parametric statistics. Normality test is done by comparing the sig value calculated by alpha \((\alpha = 0.05)\) = 0.05. If sig > 0.05, then the data are normally distributed. If sig <0.05, then the data are not normally distributed. From the results of calculations using the SPSS 22 obtained the following results:

**Table Result of Normality Test**

<table>
<thead>
<tr>
<th>Writing Skills</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar (Combined)</td>
<td>2590,243</td>
<td>20</td>
<td>339,32</td>
<td>2,23</td>
<td>0,016</td>
</tr>
<tr>
<td>Between Groups</td>
<td>246,15</td>
<td>1</td>
<td>246,13</td>
<td>4,22</td>
<td>0,077</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3244,054</td>
<td>19</td>
<td>173,714</td>
<td>2,15</td>
<td>0,021</td>
</tr>
<tr>
<td>Total</td>
<td>11882,73</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the table above calculations, the value obtained sig = 0,021; so it can be concluded that the regression equation formed is not linear.

a. Calculation of linearity X to Y

**Table Result of Linearity Test X1 to Y**

<table>
<thead>
<tr>
<th>Writing Skills</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar (Combined)</td>
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<tr>
<td>Total</td>
<td>11882,73</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the table above calculations, the value obtained sig = 0,021; so it can be concluded that the linear regression equation is formed.

3. Multicollinearity test
   Multicollinearity test intended to determine whether there is a strong relationship between each independent variable. Data analysis use multiple regression analysis can only be done if there is not multicollinearity.
   If VIF <10, then it does not happen multicollinearity.
   If VIF > 10, then there is multicollinearity.
   From the results of calculations using the SPSS 22 obtained the following results:

**Table Result of Multicollinearity Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>Tolerance</td>
</tr>
<tr>
<td>Grammar</td>
<td>3,000</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>3,000</td>
</tr>
</tbody>
</table>

The table shows that VIF values for both variables at 3,000; so it can be concluded
multicollinearity did not occur, and test of hypotheses using multiple linear regressions can be performed.

C. Test of Research Hypothesis

After testing requirements of data analysis, then performed test of research hypothesis using correlation and multiple regression. Processing of the data showed as the following results:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std. Error of the estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.352</td>
<td>0.123</td>
<td>0.098</td>
<td>9.17654</td>
</tr>
</tbody>
</table>

From the model summary table, multiple correlation values obtained between the two independent variables with dependent variable of 0.352; it does show a small or weak correlation. Furthermore, the coefficient of determination or the effects of the two independent variables on the dependent variable is only at 12.3%, which means that variations in students’ writing is given by the variable ability to think critically and mastery of the grammar of 12.3%, while the rest is influenced by other factors not discussed in this study.

From the ANOVA table shows that the value of Sig. for both independent variables are 0.045; this value is smaller than 0.05, so it can be concluded reject Ho and accept H1. Or in another sense, this study found that there was effect both of grammar and critical thinking towards student’s Writing Skill.

From coefficients table, the coefficients obtained regression equation $Y = 45.421 + 0.243X_2 + 0.497X_1$. This regression equation means that, if the ability to think critically and mastery of grammar is give effect to the writing skills of students at 45.421; and each additional 1 point on the critical thinking skills, will increase students’ writing abilities at 0.497, while each additional 1 point on the mastery of grammar, will add students’ writing ability of 0.243.

1. Test of Hypothesis 1

The effect of Grammar toward Student’s Writing Skill

Hypotheses were tested:

$H_0$: there is no effect of grammar towards student’s Writing Skill.
$H_1$: there is effect of grammar toward student’s Writing Skill.

Decision-making criteria are:

If $\text{sig} < 0.05$, then accept $H_0$ and reject $H_1$
If $\text{sig} > 0.05$, then accept $H_0$ and reject $H_1$

From this table shows that the value of sig coefficient for variable grammar is 0.041; this value is smaller than 0.05, so it can be concluded reject $H_0$ and accept $H_1$. Or in another sense, this study found that there is effect of grammar towards student’s Writing Skill.

2. Test of Hypothesis 2

The Effect of Critical Thinking Ability towards Student’s Writing Skill

Hypotheses were tested:

$H_0$: there is no effect of critical thinking ability of student’s Writing Skill.
$H_1$: there is effect of critical thinking ability of student’s Writing Skill

Decision-making criteria are:

If $\text{sig} < 0.05$, then reject $H_0$ and accept $H_1$
If $\text{sig} > 0.05$, then accept $H_0$ and reject $H_1$

From this table shows that the value of sig coefficient for the variable critical thinking ability is 0.035; this value is smaller than 0.05, so it can be concluded accept $H_0$ and reject $H_1$. Or in another sense, this study found that there was effect of critical thinking ability of student’s Writing Skill.

3. Test of Hypothesis 3

The Effects both of Grammar and Critical Thinking towards Student’s Writing Skill

Hypotheses were tested:

$H_0$: there is no effect both of grammar and critical thinking towards student’s Writing Skill.
$H_1$: there is effect both of grammar and critical thinking towards student’s Writing Skill

Decision-making criteria are:

If $\text{sig} < 0.05$, then reject $H_0$ and accept $H_1$
If $\text{sig} > 0.05$, then accept $H_0$ and reject $H_1$

From the ANOVA table shows that the value of Sig. for both independent variables are 0.045; this value is smaller than 0.05, so it can be concluded reject $H_0$ and accept $H_1$. Or in another sense, this study found that there was effect both of grammar
and critical thinking towards student’s Writing Skill

D. Discussions and Result Findings

In general, this research purposes to gain represent more completely about the effects of Grammar that students learn, and Critical thinking of students’ ability towards Writing Skill. This study is implemented at three Private Vocational School at Jagakarsa Sub District in central Jakarta.

The results of study show that Grammar Variable that students learn and Critical Thinking ability have no effect towards Writing Skill directly. Then, it is going to discuss base on research results and measuring results of hypothesis as follow:

1. There was effect of Grammar towards Student’s Writing Skill

Grammar is the fundamental organizing principle of language. Learning about English grammar provides a basis for learning language such tenses subject verb agreement, kinds of sentences, and sentence patterns. Learning English grammatical is extraordinary. After studying English grammar, the student should be more alert or awareness into better practice in speaking and writing more effectively.

At previous discussing, actually grammar is knowledge of learning language. Grammar is one of the important part that student need to master when studying English. The research results show that the grammar of the students is good enough.

Grammar is the sound, structure, and meaning system of language. All languages have grammar, and each language has its own grammar. People who speak the same language are able to communicate because they intuitively know the grammar system of that language—that is, the rules of making meaning. Students who are native speakers of English already know English grammar. They recognize the sounds of English words, the meanings of those words, and the different ways of putting words together to make meaningful sentences.

However, while students may be effective speakers of English, they need guidance to become effective writers. They need to learn how to transfer their knowledge of grammatical concepts from oral language to written language.

Effective grammar instruction begins with what students already know about grammar, and it helps them use this knowledge as they write. By connecting their knowledge of oral language to written language, teachers can demystify abstract grammatical terminology so that students can write—and read—with greater competence and confidence. The fourth reason, why students’

grammar is low: English vocabularies may be difficult to memorize by students’. The reason is one verb has four different kind of using, depend on the tense: verb in present, verb in past, verb in past participle and verb in present participle.

Research strongly suggests that the most beneficial way of helping students improve their command of grammar in writing is to use students’ writing as the basis for discussing grammatical concepts. Researchers agree that it is more effective to teach punctuation, sentence variety, and usage in the context of writing than to approach the topic by teaching isolated skills (Chin, 2017).

As students revise and edit their writing, teachers can provide grammar instruction that guides students in their attempts to identify and correct problems in sentence structure and usage. For example, a teacher who sees that many students are writing sentences containing misplaced modifiers can present a minilesson on this concept, using examples from student writing. The teacher can have students edit their own and one another's drafts for this problem.

Integrating grammar instruction into the revising and editing process helps students make immediate applications, thus allowing them to see the relevance of grammar to their own writing.

2. There was effects of Critical Thinking towards Writing Skill

Critical Thinking is a cognitive activity, associated with using the mind. It helps the student to make better and more informed decisions about whether something is likely to be true, effective, or productive learning to think in critically bring precision to the way of thinking and working

Critical thinking is the important aspects in teaching learning activity because thinking should be the key subject in education. Many of those teaching thinking today are focused on teaching ‘critical thinking’. Ability to think critical can be obtained by practicing in class to the students’ lessons, and at home parents training to solve the problem of homework.

By practicing in critical thinking helps the students to be more accurate and specific in noting what is relevant to descriptive writing. When students improve their thinking skill, they can improve their writing well.

In essence, critical thinking requires you to use your ability to reason. It is about being an active learner rather than a passive recipient of information. Critical thinkers rigorously question ideas and assumptions rather than accepting them at face value. They will always seek to determine whether the ideas, arguments and findings represent the entire picture and are open to
finding that they do not. Critical thinkers will identify, analyse and solve problems systematically rather than by intuition or instinct.

Teachers can use writing in three important ways to increase higher level thinking skills for all students. First, they must increase writing proficiency for struggling writers; second, writing can increase higher-level thinking, and third, writing can be used across content areas to increase writing fluency while fostering higher-level thinking.

3. There was effect of both Grammar and Critical Thinking towards Writing Skill.

In general, grammar is knowledge of learning language. Grammar is one of the important parts that student need to master when studying English. A lot of students complain that English grammar is difficult, as a matter of fact is not difficult. Students learn English at school depend on guiding by the teacher, following the curriculum design. It is important that curriculum design make a useful of the students need into necessities, its mean what the students have to know to function effectively, lack its mean what the students know and do not know already and wants it’s mean what the students think they need.

In order to have the strong effect on decision about the goals of the course, what to include in the course, how to teach and assess it, these factors can arise from the students, the teachers, and the teaching and learning situation.

Another aspect that influences writing is critical thinking. Critical Thinking is a cognitive activity, associated with using the mind. It helps the student to make better and more informed decisions about whether something is likely to be true, effective or productive learning to think in critically bring precision to the way of thinking and working.

Critical thinking is the important aspects in teaching learning activity because thinking should be the key subject in education. Many of those teaching thinking today are focused on teaching ‘critical thinking’. Ability to think critical can be obtained by practicing in class to the students’ lessons, and at home parents training to solve the problem of homework.

By practicing in critical thinking helps the students to be more accurate and specific in noting what is relevant to descriptive writing. When students improve their thinking skill, they can improve their writing well. Critical thinking is a way of taking up the problems of life. Empirical finding to make sure that by mastering grammar and critical thinking, the students can improve optimally for their studying, in this case especially to write descriptive in English.

Teachers can use writing in three important ways to increase higher level thinking skills for all students. First, they must increase writing proficiency for struggling writers; second, writing can increase higher-level thinking, and third, writing can be used across content areas to increase writing fluency while fostering higher-level thinking. First, writing proficiency for all students is essential. It is important not only for academic success, but also for success in life. In 1996 The National Center for Educational Statistics released a report stating that writing is important in all stages of life. Students need to learn how to express their ideas in a clear, organized manner starting from an early age. Today’s business leaders agree that writing is a crucial element for success in the workplace. The National Commission on Writing surveyed 120 large business corporations and found that writing is a “threshold skill” for employment and promotion. Seventy percent of the corporations that responded to the survey reported that two-thirds of their salaried employees had some responsibility for writing. In order to meet the writing needs of all learners, Knipper & Duggan (2006) & Bangert-Drowns, Hurley and Wilkinson (2004) all recommend that adaptations for individual students need to be made. In 2003 Graham, Harris, Fink & MacArthur surveyed 1st–3rd grade teachers and found that 20% made no adaptations for struggling writers and another 24% reported that they only made 1 or 2 adaptations. Teachers need to be involved in the writing process with their students by giving consistent feedback, modeling, and providing clear guidelines for each writing assignment. Second, higher-level thinking is a significant goal of our education system today. Students need to be moved beyond rote memorization to deeper understanding of content. The role that writing can play in encouraging students to manipulate information in new ways needs to be explored. Nagin (2006) argues that writing is essential for “success in and out of school” and can support learning in all disciplines (Nagin, p. 5).

Writing across content areas can support teachers in this endeavor if the role of writing moves beyond language arts classrooms. Paivi (1998) argues writing can increase topic understanding, evolution of thinking and critical thinking skills. Baxter, Basas & Glaser (2001) also argue that by using writing in content areas, teachers are able to monitor and assess student learning. Smith and Hiles (2006) argument writing can play in encouraging students to manipulate information in new ways needs to be explored. Nagin (2006) argues that writing is essential for “success in and out of school” and can support learning in all disciplines (Nagin, p. 5).
IV. Conclusions

Based on collecting of data, processing and testing of hypotheses, it can be concluded that:

1. Grammar learned by the students had effect on the student’s writing skill, this is evidenced by t count = 0.654 and Sig. as big as 0.041 < 0.05.

2. Critical thinking ability had effect on the student’s Writing Skill, this is evidenced by t count = 0.446 and Sig. as big as 0.035 < 0.05.

3. Grammar and critical thinking ability had effects on the student’s writing skill. This is evidence of the value both independent variables are f count = 43, 765 and sig as big as 0.045 < 0.05.

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