

THE EFFECTS OF COGNITIVE COMPETENCE AND SELF-ESTEEM TOWARDS STUDENT'S READING COMPREHENSION

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ABSTRACT

The aim of this study is to obtain empirical data and to analyze about whether or not there are the effects of cognitive competence and self esteem towards student's reading comprehension. The study was conducted at the State Junior High Schools in South Jakarta from November 2012 to January 2013. The research method is survey with multiple-regression analysis technique. The research findings show three points. Firstly, there is a significant effect of cognitive competence and self-esteem towards student's reading comprehension with multiple coefficient correlation is 0,816. Secondly, there is a significant effect of cognitive competence towards student's reading comprehension since t_{observed} is higher than t_{table} ($4.728 > 1.669$). Thirdly, there is a significant effect of self-esteem towards student's reading comprehension since t_{observed} is higher than t_{table} ($6.476 > 1.669$). Based on the research findings, the student's reading comprehension can be developed by increasing the cognitive competence and self-esteem of the students.

Key words: cognitive competence, self-esteem, reading comprehension

ABSTRAK

Penelitian ini bertujuan untuk memperoleh data yang empiris dan menganalisis mengenai ada tidaknya pengaruh antara kemampuan kognitif dan harga diri terhadap pemahaman membaca peserta didik. Penelitian dilaksanakan di SMP Negeri di Jakarta Selatan dari bulan November 2012 sampai dengan Januari 2013. Metode penelitian yang digunakan adalah survei dengan teknik analisis regresi ganda. Hasil penelitian menunjukkan tiga hal. Pertama, terdapat pengaruh yang signifikan antara kemampuan kognitif dan harga diri terhadap pemahaman membaca peserta didik dengan nilai koefisien korelasi ganda sebesar 0,816. Kedua, terdapat pengaruh kemampuan kognitif terhadap pemahaman membaca dengan nilai t-observasi lebih besar dari t-tabel ($4,728 > 1,669$). Ketiga, terdapat pengaruh harga diri terhadap pemahaman membaca dengan nilai t-observasi lebih besar dari t-tabel ($6,476 > 1,669$). Berdasarkan hasil penelitian dinyatakan bahwa peningkatan pemahaman membaca peserta didik dapat dilakukan dengan meningkatkan kemampuan kognitif dan harga diri para peserta didik.

Kata kunci: kemampuan kognitif, harga diri, pemahaman membaca

INTRODUCTION

In language learning, there are four skills that should be mastered by the students. One of them is reading skill. Reading is not only about pronouncing the words but also getting the understanding to the content of the text. Without comprehension, reading is simply following words on a page from left to right while sounding them out. The words on the page have no meaning and the reader cannot gather any information. Skilled readers do not just read but interact with the text.

The reading comprehension is very important in every aspect of life, for example if someone wants to take a medicine, he or she must read the instruction and regulation of how to consume it. Therefore, he or she must understand the instruction to avoid a mistake. Another instance, if we want to operate some appliances, we must read the procedures of the instructions given.

Also in academic, reading comprehension takes an important role because by having a good reading skill, students can get more detail information from which they learned. The students must read the text comprehensively in order to answer the questions of the text precisely. The lack of strong reading comprehension skills obviously affects a student's success in school. Academic progress depends on understanding, analyzing and applying the information through reading.

Reading Comprehension is a complex interaction among automatic and strategic cognitive process that enables the reader to create a mental representation of the text. (Van den Broek & Espin, 2012). For having a good reading comprehension, there are some factors involved such as cognitive and affective. When a person reads a text, he engages in a complex of array of cognitive process. Simultaneously, he

uses his awareness and his understanding to the phonemes and phonics in order to comprehend the meaning of the text. Reading is a cognitive process which includes transferring the written symbols through the eyes, so these symbols need understanding the meaning and integrating the meaning into personal experiences.

Similarly, Tierney and Pearson (1994) stated that reading is not just extracting meaning from a text but a process of connecting information in the text with the knowledge the reader brings to the act of reading. In this sense, reading is a dialogue between the reader and the text which involves an active cognitive process in which the reader's background knowledge plays a key role in the creation of meaning. Reading can also be defined as the level of understanding of a text message. This understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text message.

Reading first comprehensively implies the capture of the writer's purposes. It also implies that readers identify basic information that is able to predict, to infer, to argue and to recognize writer's points of view. According to Richard (2002), reading for comprehension is the primary purpose for reading, raising student awareness of main ideas in the text and exploring the organization of a text are essential for good comprehension. Based on Harris and Hodges (1995), reading comprehension is the construction of the meaning of a written text through a reciprocal interchange of ideas between the reader and the message in particular text.

According to Smith (1994:2) "Reading is a not passive mechanical activity but purposeful and rational, dependent on the prior knowledge and

expectation to the reader". It is not merely of decoding print to sound but also a matter of making a sense of written language. It is suggested that background knowledge is a helpful tool when a person confronts a text since he can recognize his knowledge and puts in together better. To comprehend a reading, it is necessary that the reader can extract the key words in order to capture the whole sense of the text.

Brown (2001) considered that reading is as much as emotional as a cognitive process so that the affective factors strongly impact all phases of writing process. In fact, reading is a combination of cognitive and affective process and to optimize learning, equal attention should be given to the two sides: cognitive and affective.

In brief, it can be concluded that reading comprehension is a cognitive and affective process to construct the meaning of the written text in which the reader's background knowledge plays a key role in creation of meaning.

To understand the content of a text, the reader needs cognitive ability. Ashcraft (1994:14) defined "Cognitive science is the scientific study of thought, language, the brain-in short, the mind". Ashcraft (1994:12) also affirmed that "Cognition is the collection of mental process and activities used in perceiving, remembering, thinking and understanding, as well as the act of using that processes."

Cognitive theory is a learning theory of psychology that attempts to explain human behavior by understanding the thought processes. The assumption is that humans are logical beings that make the choices that make the most sense to them. Cognitive competence is defined as the ability to perform adequately those cognitively complex tasks considered essential for living on one's own in this society

(Willis, 1996). Cognitive competence is referred to the brain-based skills we need to carry out any task, from the simplest to the most complex. It has more to do with mechanism of how we learn, remember, solve the problem, and pay attention, rather than deal with any actual knowledge.

Cognitive abilities are mental skills that comprise six main aspects, they are: 1) perception, skill involved recognition and interpretation of sensory stimuli; 2) attention, skill involved ability that sustain concentration on a particular object, action, or thought; 3) memory, short-term memory and long-term memory; 4) motor, ability to mobilize our muscles and bodies; 5) language, skill allowing us to translate sounds into words; and 6) visual and spatial processing, the ability to process incoming visual stimuli and ability to understand spatial relationship between object.

In short, it can be stated that cognitive competence is an ability to carry out any task from the simplest to the most complex by involving the mental skills.

Besides the cognitive factors, there are some affective factors are involved in reading comprehension. One of them is self-esteem. In recent years, the importance of affective factors like anxiety, inhibition, motivation and self-esteem has been of interest in the field of language learning because of their high effects on learning a foreign or second language (Andres, 2002). Learning English involves challenges, so in order to get along with them a student needs positive self-esteem. It could be claimed that no successful can be carried out without some degrees of self-esteem, self-confidence, knowledge of yourself, and belief in your own capabilities for that activity. Around this issue, Stevick (1990) stated that self-esteem is

considered as one of the important affective factors because a success or a failure of a person depends mostly on the degree of one's self-esteem. Furthermore, as Brown (2007) maintained that no successful can be occurred without some degree self-esteem.

Smith and Mackie (2007) stated that the self-concept is what we think about the self; self-esteem, is what the positive or negative evaluations on the self, as in how we feel about it. In short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes that individuals hold towards themselves. It is a subjective experience which the individual conveys to others by verbal report and other overt expressive behavior.

Self-esteem is probably the most pervasive aspect of any human behavior. It could be easily claimed that no successful cognitive or affective activity can be carried out without some degrees of self-esteem, self-confidence, knowledge of yourself, and belief in your capabilities for that activity.

Self-esteem has been determined to play a major role in learning outcomes and school influences to process of developing self-esteem (Pepi et al, 2006). Furthermore, as Dornyei (2005) suggested that self-esteem could be a manifestation of one's performance. Students who have good feeling about themselves have their minds high goals to achieve whereas students with low self-esteem are likely to think that they are extremely low and protect them from the anxiety of failure.

People derive their sense of self-esteem from the accumulation of experiences with themselves and with others and from the assessments of the external world around them. Three general levels of self-esteem have been described in the literature to capture its

multidimensionality: 1) *general or global self-esteem* is said to be relatively stable in a mature adult, and it is resistant to change the exception by active and extended therapy; 2) *situational or specific self-esteem* refers to one's self-appraisals in particular life situations, such as social interaction, work, education, home, or on certain relatively discretely defined traits, such as intelligence, communicative ability, athletic ability or personality traits like gregariousness, empathy, and flexibility; and 3) *task self-esteem* relates to particular tasks within specific situations. For example, within the educational domain, task self-esteem might refer to one subject-matter area. Specific self-esteem might encompass second language acquisition in general, and task self-esteem might appropriately refer to one's self-evaluation of a particular aspect of the process: speaking, writing, a particular class in a second language, or even a special kind of classroom exercise (Brown, 2000).

In general, more successful academic accomplishments are coupled with higher self-esteem. Because there is such a strong, positive relationship and continuous interaction between these two factors, studying together can serve students, teachers, counselors and anyone working in the school environment in a beneficial manner (Freih, 2005).

In line with this study, there is a previous research was done by Loree. J. Hisken from University of Central Missouri in 2011 entitled "The Correlation between Self-esteem and Student Reading Ability, Reading Level, and Academic Achievement". The research showed that there is positive correlation between self-esteem and reading ability, reading level, and academic achievement. Students' level of self-esteem was positively impacted if

they were successful in reading and other academic.

Another previous research which is done in 2009 which is related to this study is “Effects of Motivational and Cognitive Variables on Reading Comprehension” by Ana Taboada Barber from George Mason University, Allan Wigfield from University of Maryland, Stephen M Tonks from Northern Illinois University and John T Guthrie also from University of Maryland. They examined how motivational and cognitive variables predict reading comprehension. The results showed that motivation, background knowledge, and cognitive strategy-use made significant, independent contributions to children’s reading comprehension.

METHOD

The method used in this study is survey with multiple regression technique. In this research, Cognitive Competence (X_1) and Self-Esteem (X_2) are as independent variables and Reading Comprehension (Y) is as dependent variable. The participants were 67 students of Junior High School. Before estimating their degree of self-esteem and cognitive competence, students are given the tests of reading comprehension so that their English language reading comprehension scores could be determined. After the participants finished doing their reading comprehension test and in the same session, they were asked to do the Rosenberg’s self-esteem scale questionnaire and cognitive competence test. The analyses comprised of both descriptive and quantitative statistics. Normality of the data and condition for analyses were checked statistically with Kolmogorov-Smirnov test. The Statistical procedures included Pearson Product Moment Correlation Coefficient

to examine the degree and the relationship between the study variables. After that, the data were analyzed by using multiple regression equation, significance test coefficient multiple regression, and significance test coefficient partial regression.

RESULTS AND DISCUSSION

Descriptive Data Analysis

1. Data Analysis of Cognitive Competence (X_1)

By using SPSS, the score of the cognitive competence from the participants shows: mean = 77.39; it means the cognitive competence score of the participants has the average score is 77.39 and it is in the middle category. The median is 80.00; it means there are 50% of the data are less than 80.00 and 50% are more than 80.00. The mode of the data is 80, it means there are more participants that have score 80. With the maximum score is 95 and minimum score is 50, the range of the data is 45. By having standard deviation is 8.934 and variance is 79.817, it is shown that the scores have 8.934 for the variability. From the descriptive data, it can be stated that the cognitive competence score in average is in the middle category.

2. Data Analysis of Self-Esteem (X_2)

The scores of the self-esteem from the participants show: mean=28.22: it means that the self-esteem score of the participants has 28.22 in average. The median is 28.00: it means there are 50% of the data are less than 28.00 and 50% are more than 28.00. Mode is 28, it means there are more participants that have score 28. With the maximum score =35 and the minimum score =23; the range of the data is 12. By having standard

deviation=2.838 and variance=8.055, it is shown that the scores have 2.838 for the variability. From the descriptive data, it can be stated that the self-esteem score is also in the middle category.

3. Data Analysis of Reading Comprehension (Y)

The scores of the reading comprehension from the participants show: mean=83.55; it means the self-esteem score of the participants is 83.55 in average. The median is 84.00, it means there are 50% of the data are less than 84.00 and 50% are more than 84.00. The mode is 88, it means there are more participants have score 88. With the maximum score=96 and minimum score=68; the range of the data is 28. By having standard deviation is 7.409 and variance is 54.887; it is shown that the scores have 7.409 for the variability. From the descriptive data, it can be stated that reading comprehension score is in the middle category.

Requirement Data Analysis

1. Normality Test

By using Kolmogorov – Smirnov test, the value of Asymp. Sig. (2-tailed) of cognitive competence variable is 0.0089 which is higher than 0.05, it means the data of cognitive competence variable have normal distribution. For the self-esteem variable, the value of Asymp. Sig. is 0.127 and it is higher than 0.05; it means the data of self-esteem variable have normal distribution also.

The value of Asymp. Sig. of reading comprehension variable is 0.069 which is higher than 0.05 so the data of reading comprehension variable have normal distribution as well.

2. The Linearity Test

By using ANOVA, the value of Sig. Deviation of Linearity of cognitive competence towards reading comprehension is 0.177 which is higher than 0.05 means that cognitive competence data have linearity towards reading comprehension data. And for the linearity of self-esteem towards reading comprehension, Sig. of Deviation of Linearity is 0.123 which is also higher than 0.05, it indicates that self-esteem data have linearity towards reading comprehension data.

Data Interpretation

1. The Effect of Cognitive Competence (X1) and Self-Esteem (X2) towards Student's Reading Comprehension (Y)

By using SPSS Programme, it is obtained that the multiple correlation coefficient is 0.816 and coefficient determination is 66,6%. It indicates that among variables have strong effects.

On the basis of ANOVA^b, it is obtained $F_{\text{observed}} = 63.842$ and $F_{\text{table}} = 3.136$ with significance probability level is Sig.= 0.000. It indicates that among variables have significant effects. Since significance probability level than significance grade ($0.000 < 0.05$) and F_{observed} is higher than F_{table} ($63.842 > 3.136$), therefore the regression model can be used to predict the ability of student's reading comprehension. Furthermore, the conclusion is much more convincing that cognitive competence and self-esteem bring significant effects to student's reading comprehension.

While from the regression analysis, it is obtained that the equation of the regression $Y =$

$$18.256 + 0.328X_1 + 1.414X_2$$

This means:

- a. The constant score = 18.256 shows if the value of Cognitive competence (X1) and Self-esteem (X2) is zero, then the value of Reading Comprehension (Y) is 18.256
- b. The coefficient regression of variable cognitive competence (X1) is 0.328. It means that if the values of other variables are constant, and then every raise of 1 point or 1% from the variable cognitive competence then the value of reading comprehension will raise 0.328. The coefficient variable (X1) is positive, means that there is a positive effect of cognitive competence towards reading comprehension. The more value of cognitive competence will raise the value of reading comprehension.
- c. The coefficient regression of variable self-esteem is 1.414, that means if the values of other variables are constant, and then every raise of 1 point or 1% from the variable self-esteem then the value of reading comprehension will raise 1.414. The coefficient variable (X2) is positive. It means that there is a positive effect of self-esteem towards reading comprehension. The more value of self-esteem will raise the value of reading comprehension.

On the basis of calculated data, it can be concluded that Cognitive Competence and self-esteem give contribution to reading comprehension. Dealing with cognitive competence, it has important role to help students to get a comprehension in reading a text by having cognitive or in this case is

knowledge about the content. The skill of thinking process and the conception about the reality have already modified by their experience with surrounding. They can interpret the information actively from their experience and adapt it to the knowledge and conception. Therefore, students will be easier to understand the text.

In addition, the self-esteem cannot be ignored. By having positive attitudes towards personal values, a student will have more support to do any kinds of tasks including reading comprehension. Based on the coefficient's table, there is a significant effect of cognitive competence and self-esteem towards reading comprehension since $R = 0.816$. It indicates that among variables have strong significant effect.

2. The Effect of Cognitive Competence (X1) towards Student's Reading Comprehension (Y)

Observing from the result of data analysis, it shows that $\text{Sig.} = 0.000$ and $t_{\text{observed}} = 4.728$. Meanwhile t_{table} in significance grade is 5% with the degree of freedom 65 ($df = n-2$) is 1.669. Since Sig score is lower than significance grade ($0.000 < 0.05$) and t_{observed} is higher than t_{table} ($4.728 > 1.669$) which means there is a significant effect of cognitive competence towards student's reading comprehension.

Cognitive competence is the ability of the brain's functions (i.e., perception, attention, memory, motor, language, visual and spatial) to carry out any task from the simplest to the most complex. Moreover, reading comprehension can be defined as the ability to understand what has been read by using mind

capacity to perceive and to communicate by texts. Hence, cognitive competence is needed in understanding the content of the text.

3. The Effect of Self-Esteem (X2) towards Student's Reading Comprehension (Y)

Based on the data analysis, it shows that Sig. = 0.000 and $t_{\text{observed}} = 6.476$. Meanwhile t_{table} in significance grade is 5% with the degree of freedom 65 ($df = n-2$) is 1.669. Since Sig. score is lower than significance grade ($0.000 < 0.05$) and t_{observed} is higher than t_{table} ($6.476 > 1.669$) which means there is positive and significant effect of self-esteem towards student's reading comprehension.

Self-esteem is probably the most pervasive aspect of any human behavior. It could be easily claimed that no successful cognitive or affective activity can be carried out without some degrees of self-esteem, self-confidence, knowledge of yourself, and belief in your capabilities for that activity. Therefore, by having a high self-esteem, students can do anything better, including in reading comprehension.

CONCLUSION

Cognitive competence and self-esteem give a contribution to reading comprehension. Dealing with cognitive competence, it has important role to help students to get comprehension in reading a text. Cognitive competence can support students to understand a text and to get the ideas of the writer's purpose. It determines the student's reading comprehension. Self-esteem is needed for the students in the learning process or even in doing many other tasks. Self-esteem is how someone gives the

positive value to him or herself. Because self-esteem is probably the most pervasive aspect of any human behavior. It could be claimed that no successful cognitive or affective activity can be carried out without some degrees of self-esteem and belief in the capabilities for that activity. The student who has high value of self-esteem can do better than the student who has low self-esteem value. Because it can be a supporting factor for the students to do many tasks.

Students should realize the importance of cognitive competence and self-esteem in reading comprehension. They can practice some tasks which deal with the brain's activity and they must appreciate themselves in order to raise their self-esteem.

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