

**CORRELATION BETWEEN SELF-REGULATION STRATEGY
AND RECEPTIVE VOCABULARY SIZE OF
ENGLISH DEPARTMENT STUDENTS
AT UNIVERSITAS BRAWIJAYA**

SCIENTIFIC ARTICLE

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CORRELATION BETWEEN SELF-REGULATION STRATEGY AND RECEPTIVE VOCABULARY SIZE OF ENGLISH DEPARTMENT STUDENTS AT UNIVERSITAS BRAWIJAYA

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Abstract: The purpose of this study is aimed to know the correlation between self-regulation learning strategy and receptive vocabulary size in EFL Indonesian university students. The subject of the research was the students' of 7th semester English literature major at Universitas Brawijaya. In accordance, this study was conducted in the umbrella of quantitative approach considering the data that was in the form of numbers and requisite the statistical analysis. Yet, in line with the objective of the study, the design used was correlational research design.

There were two instruments used in this study; self-regulatory capacity vocabulary proposed by Tseng, et al. (2006) and receptive vocabulary size test proposed by Nation (2006). The first instrument was in the form of questionnaire by 20 listed questions that covered commitment control, metacognitive control, satiation control, emotional control and environmental control. The second instrument was in the form of multiple choice questions consisting of 100 questions that covered 20.000 word level of vocabulary. Besides, to analyse the data Karl Pearson Product Moment was used to find the correlation coefficient, alongside the t-test to test the hypothesis.

The result of this study showed that there was significant correlation between self-regulation strategy and receptive vocabulary size. The relationship was concluded from the interpretation of r_{xy} which has the higher value than r_{table} by degree of freedom (df) 65 and significance level of 5%, $r_{xy} 0.84 > r_t 0.2387$. The result of the computation was considered as H_0 (null hypothesis) was rejected and H_a (alternative hypothesis) was accepted. Respectively, the r values was positive in which means there was positive correlation and it was comprised as having high correlation according to the table of r interpretation proposed by Riduwan, (2005). In conclusion, there is positive and significant correlation between self-regulation learning strategy and receptive vocabulary size. In other words, if the self-regulation learning strategy of the students is high or in a good control the size of students' receptive vocabulary is also high. Furthermore, this study is expected to signify the students in order to choose the best learning strategy to gain successful learning. Yet, for further researchers, this study is expected to give some contributions as the references in conducting further study.

Keywords: Self-regulation strategy, receptive vocabulary size and EFL students.

Self-regulation strategy gives an important role in learning process. Students could control the learning process, maintain good atmosphere of learning, monitoring the process and evaluating the learning process independently. This is in line with Zimmerman and Schunk's statement (2001) that independent learning covers aspects of learning in metacognitive, motivational, and behavioral ways.

Psychologically, this construct is known as self-regulation learning in which the process of learning is handled by students own thinking and motivational beliefs as well as managing their resources and the learning environment effectively, (Zahidi, 2012). In other words, students are handling all the process of learning by their self, not to depend on teacher's material and order. Naturally, the metacognitive skills will guide the learning process into the appropriate atmosphere. Students improve, elaborate, and organize materials, evaluate the learning process and handle motivation in positive ways.

There are four basic skills in learning a language; listening, speaking, reading and writing. It is categorized into receptive and productive knowledge. As suggested by Laufer & Goldstein (2004), receptive knowledge relates to the skills of listening or reading and productive knowledge relates to the skills of speaking or writing. In line with the previous statement, vocabulary also consists of receptive vocabulary and productive vocabulary. Receptive vocabulary is the vocabulary gained from listening or reading skills. It is the first step of vocabulary learning in which the learners receive the meaning of particular word. Productive vocabulary is the vocabulary gained from productive skills that is speaking or writing. It is the continuance of learning vocabulary to produce such words in a speaking or written text.

In the scope of self-regulation learning strategy, students' receptive knowledge stands as prior knowledge of language acquisition. In other words, the listening and reading skills become essential. For instance, in comprehending a text, independent learners seek information by using the receptive skills of reading. It is necessary to have a high vocabulary size especially the receptive vocabulary size.

Also it is gained from many practices of reading and the consistency of maintaining the self-regulation learning strategies.

The participant of this study is the 7th semester students of English literature at Universitas Brawijaya. The selection of the participant is considered by some factors; the first is the students' level; these students are included into intermediate level students of EFL learners, from their experiences of learning. They have already passed the basic, second level and third level of language skills (i.e. reading, listening, writing, and speaking) according to the lesson schedule from first until seventh semesters. The second is, they have mastered a lot about reading because their lesson is mostly related with reading text, such as literature books, novel, prose, etc.

In investigating the self-regulation learning strategy the researcher chose Zimmerman and Schunk's theory (2012) dealing with the psychological construct on how students improve their learning and performance by looking into metacognitive, motivational and behavioral means. Also, the researcher chose the theory of Nation (2006) in investigating the receptive vocabulary size in the scope of how large the receptive vocabulary size can improve the language learning of EFL students especially from reading.

METHOD

In this study the researcher chose the quantitative approach in the design of Correlational research. Quantitative approach is an approach of doing research by using numerical data and statistical analysis. In analyzing the data, it is highly needed to use statistical ways because of the form of the data that is numbers. According to the objectives of the study the design used in this study was Correlational research design. It was emphasized on finding the relationship of two or more variables. In this design the relationship was only defined by positive and negative relationship.

There were two variables in this study; variable x and variable y. The researcher chose self-regulation learning strategy of EFL Indonesian University

Students to become variable x, while receptive vocabulary size of EFL Indonesian University Students becomes variable y.

The subject of this study were 7th semester students of English literature.

The populations were 199 participants. However, the researcher decided not to choose all the population to be the participants of the study considering the limitation period of time. Instead, the researcher took the sample of the participant by using Slovin's theory in the scope of probability sampling. The result of the sample size showed that there were 67 participants that would become the subject of this research. According to Sarjono and Juanita 2011, probability sampling is the sampling technique which gives the equivalent chances and opportunity for each participant to be chosen. There were five techniques in probability sampling; simple random sampling, proportionate stratified sampling, disproportionate stratified random sampling, cluster sampling, systematic sampling. Yet, in this study the simple random sampling technique would be used as the sampling technique.

There were two instruments used in this study, namely questionnaire and test. The researcher took the questionnaire from Tseng, et al. (2006) that proposes questionnaire on self-regulation learning strategy. It was used to measure the level of students' self-regulation learning strategy in EFL learning process. There were 20 questions listed in the questionnaire, which measure the five subscales of self-regulatory learning strategy; commitment, metacognitive, satiation, emotional and environmental control. The second instrument is vocabulary size test proposed by Nation, (2006). The test form was in the form of multiple choices which represents a close-ended question in a particular context. It was used to measure the size of students' receptive vocabulary especially the vocabulary knowledge. There are two versions of the test; 14.000 word levels and 20.000 word levels. The researcher used the second version of the test, which is the 20.000 version instead of the first level. The rationale lied on the number of questions per each version test. As the first version has 140 multiple choice items while the second version has fewer questions that are 100 multiple choice items, the researcher decides to use the second version of the test considering the difficulties of the participant in answering the test.

The data was collected from both instruments by having two procedures; participant selection and distributing the instruments. The participant was selected by random sampling using the lottery techniques. Afterwards, the researcher gathered the participants into a class to distribute the questionnaire and the test. The completion of the questionnaire and the test approximately took 50 minutes to complete two instruments. The first twenty minutes were used to finish the SRCVOC, and other thirty minutes were used to complete the second instrument which was Receptive Vocabulary Size Test.

The data was analyzed by using five procedures that listed below;

1. Analysing the SRCVOC data based on Tseng's theory which has five subscales of self-regulation strategy; commitment control, metacognitive control, satiation control, emotional control and environmental control. Also analysing the Receptive Vocabulary Size test based on Nation's theory that investigate the word level of the learners. Afterward both data is transformed into descriptive statistical form which consists of numerical data.
2. Analysing the data by using Pearson Product Moment formula to find the correlation coefficient (Muslikh, 2011).

$$r_{xy} = \frac{N \sum XY - (\sum X \sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

Notes:

r_{xy} = correlation coefficient

N = the total of sample in this study

$\sum X$ = the total score of SRCVOC

$\sum Y$ = the total score of Receptive Vocabulary Size Test Score

$\sum XY$ = the total of multiple score between SRCVOC and Receptive Vocabulary Size Test Score

$\sum X^2$ = the total of the squared scores of SRCVOC

$\sum Y^2$ = the total of the squared scores of Receptive Vocabulary Size Test

Score

This formula is used to find the index correlation "r" product moment between X variable and Y variable (r_{xy}).

3. Discovering the significance of both variables by using the t-test formula as follow;

$$t = \frac{r\sqrt{N-2}}{\sqrt{1-r^2}}$$

Notes:

t = value

r = value of correlation coefficient

n = number of participant

4. Interpreting the result of correlation coefficient (r_{xy}) by using the table proposed by Riduwan (2005:136) as listed below:

Table 0.1 Interpretation of r score

Coefficient Interval	Correlation level
0,80-1,000	Very high
0,60-0,799	High
0,40-0,599	Moderate
0,20-0,399	Low
0,00-0,199	Very low

Notes:

Very high = there is very high correlation between variable x and y

High = there is high correlation between variable x and y

Moderate = there is a correlation between variable x and y, but the value is medium

Low = there is correlation between variable x and y, but the value is little or weak

Very low = There is correlation between variable x and y, but the correlation is very little or weak. Thus, it is considered as there is no significant correlation.

5. Drawing the conclusion

The researcher will conclude the result of data analysis by using degree of significant at the level of 5% namely α . It is used as the probability to reject the null hypothesis. These are the consideration used to draw the conclusion;

1. $r_0 \leq r_t$ (correlation coefficient is smaller than the significant correlation using t-test), H_0 accepted (H_a rejected) means there is no significant correlation between two variables.
2. $r_0 \geq r_t$ (correlation coefficient is higher than the significant correlation using t-test), H_0 rejected (H_a accepted) means there is significant between two variables.

FINDINGS

The finding of this study resulted that there were high score of self-regulation learning strategy and receptive vocabulary size according to the participant. In detail, the statistical description of the questionnaire was described below;

Statistical description of SRCVOC

Mean	60.5
Median	60
Mode	50
Maximum	86
Minimum	24

It showed that the average score of the test is 60.5 points, with the score that often appears 50. Though, the minimum score of the participant is 24 but the maximum score was 86. It can be classified as high score considering that this is

questionnaire form. The high score of the questionnaire showed that there are lot of interest and self-regulatory strategy from the participant of the present study.

The score of the receptive vocabulary size test was described statistically as listed in the table below;

Statistical description of Receptive Vocabulary Size Test

Mean	69.5
Median	69
Mode	80
Maximum	93
Minimum	33

It shows that the average score of the participant is 69.5 which means the result was good enough. Also, the medium score of the score's interval is 69. Though the score's interval is wide, it is varied from 93 as the highest score and the lowest score is 33. Yet, the score that often appears are 80 meaning good score. It deals with the variety in the interval of the participants' score.

Since, there were five scales in the self-regulatory capacity vocabulary (e.g. commitment control, metacognitive control, satiation control, emotional control, environmental control) the result of each scales showed almost the same percentage though it just had a slight differences. The highest percentage was environmental control, which means the participants' were able to control the atmosphere and the environment surround them. Yet, the lowest percentage was emotional control. Thus, in the self-regulatory capacity vocabulary all scales (i.e. commitment, metacognitive, satiation, emotional and environmental) were considered as having the same proportion in the field of self-regulation learning strategy.

The second data was the score of receptive vocabulary size. It showed how many was the size of participants' receptive vocabulary size. According to Nation (2006) the standard level of EFL learners was in the 8000 word level in order to deal with a range of un-simplified spoken and written test. In the result all participants excluding one participant (EB) has covered the 8000 word level. Also,

there were many participants covered beyond the standard level. By looking at the elucidation before, it was concluded that the participants' receptive vocabulary size was high.

The result of the study showed that the value of t_{count} by r_{xy} 0.84 was 12.4. On the other side, the t_{table} by df (degree of freedom) 65 in the significant level 5% was 1.669. It resulted that the value of t_{count} is higher than t_{table} ($t_{\text{count}} > t_{\text{table}}$) by means H_0 is rejected and H_a is accepted. Thus, in the conclusion the researcher concluded that there were significant correlation between two variables and the correlation coefficient was 0.84 in which means there were positive and very high level correlations

DISCUSSION

The result of the first data (i.e. Self-Regulation Learning Strategy questionnaire) shows that the five sub-scales; commitment control, metacognitive control, satiation control, emotion control and environmental control are in composed and mutually proportion of the percentages which support the self-regulation learning strategy to make a better learning process. This is in line with Zimmerman and Schunk's theory (2012) on how students improve their learning and performance by dealing with the psychological construct involving the metacognitive, motivational and behavioral means. Also by using self-regulation as the strategy in learning, students will automatically become independent learners that make them able to improve learning process rapidly.

The second data result shows that the receptive vocabulary size of EFL University students in Indonesia is excellent, considering the standard minimum of word level to be mastered is 8.000 word level in which all participant has already conquered it. Facing the fact stated earlier, it is possible that reading is having big influences on language learning in the field of vocabulary mastery. In line with previous statement, Nation's (2006) suggested that the size of receptive vocabulary can improve the language learning of EFL students especially from reading. Therefore, by having a great size of receptive vocabulary the language learning will be accomplished easily.

In summary, if student's self-regulation learning strategy is high the receptive vocabulary size of the students also follows by having high size vocabulary. Yamamoto (2013) stated that "not only did successful learners use a variety of strategies, but they also took a structured approach by engaging in self-initiated learning activities, keeping records of new words, and reviewing them". Since self-regulation learning strategy covers all metacognitive, behavior and emotional construct it could be a big help for acquiring vocabulary.

CONCLUSION AND SUGGESTIONS

The present study aimed to find out the relationship between self-regulation learning strategies and receptive vocabulary size in Indonesian EFL context. According to the result of the data described previously, the correlation coefficient value is higher than r_t Pearson product moment by the significance level of 5% and df 65, the result showed that $r_{xy} 0.84 > r_t 0.2387$ which means H_a is accepted and H_o is rejected. From the computation, it was found that there was significant correlation between both variables. Also, the value of r was positive and close to +1 indicates the positive relationship between both variables.

Thus, the relationships of both variables were found in the positive and high significant correlation. If the self-regulation learning strategy of the students is in terms of high or good control, the receptive vocabulary size of the students is also in the wide and high size.

After conducting this study, the researcher suggests to consider self-regulation learning strategy as the best strategy to use in learning process. Considering the aspects covered in this strategy such as commitment, metacognitive, satiation, emotional and environmental control the learners will find this strategy as best strategy to use. However, learners need high and strong willpower alongside motivation to maintain their learning process. Thus, the self-strict control is a must to gain successful learning. As for further researcher, hopefully this study could give the contribution as the references. Furthermore, there still a lot of fields that lacks in the completion. Please feel free to do any research regarding those and seek for further and deeper understanding.



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