



Cognitive and Structure-Proposition-Evaluation Strategies in Teaching TOEFL Reading Comprehension to High Low Motivated Students

Lulu' Ekadini¹, Dwi Rukmini²

¹ Universitas Islam Sultan Agung, Indonesia

² Universitas Negeri Semarang, Indonesia

Article Info

Article History:

Accepted 24 Mei 2018

Approved 12 July 2018

Published 15

September 2018

Keywords:

teaching reading,
cognitive strategy,
structure-proposition-
evaluation strategy,
students' motivation

Abstract

The present study investigated the effectiveness of Cognitive and Structure-Proposition-Evaluation strategies in teaching TOEFL reading comprehension to high and low motivated students. An experimental research with factorial design 2x2 was used in this research. The first group was treated by using cognitive strategy and the other was treated by using SPE strategy. The motivational questionnaire was conducted for classifying the students upon the high and low motivation. The data were analyzed by applying Two-Way ANOVA. The result reveals that (1) cognitive strategy had a significant effect for teaching TOEFL reading comprehension among students with high and low motivated students, (2) SPE strategy had a significant effect for teaching TOEFL reading comprehension among high and low motivated students, (3) there was no significant difference between the students' achievement after the implementation of cognitive and SPE strategies for teaching TOEFL reading comprehension among high and low motivated students, (4) there was no significant difference of students' motivation in reading comprehension when they are taught by using cognitive and SPE strategies for high and low motivated students, (5) there was no interaction among teaching strategies (cognitive and structure-proposition-evaluation strategies), motivation (high and low motivated students), and students' reading comprehension.

© 2018 Universitas Negeri Semarang

 Correspondence Address:

Jalan Kaligawe Raya KM.4, Terboyo Kulon, Genuk,
Semarang, Jawa Tengah 50112

E-mail: lulululicious@gmail.com

p-ISSN 2087-0108

e-ISSN 2502-4566

INTRODUCTION

One of the fundamental factors in gaining success in the academic field is mastering the reading skill. It can be said that reading is one of the essential language skills that must be acquired by a person in modern era. Grabe in Takallou (2011, 275) mentions that reading is probably the most important skill for second language learners in academic context. It has always been related to knowledge, maturation of thoughts, innovation, advancement, modernization and so forth.

Reading is so prevalent in language use and the primary means of language learning for students. Reading is also considered an interactive and a thinking process of transferring printed letters into meaning in order to communicate certain message between the writer and the reader (Chotimah & Rukmini, 2017). Because of the increasing of direct communication in foreign language, the development of reading comprehension as a skill and a channel for language input has become the object of attention in education that needs to be researched. Sukarni, Rukmini, Sofwan, and Hartono (2017) also argued that reading as one of the skills critically needed to enhance new knowledge even to master innovative technology generally written in English.

Funchs (2007) said that students who enjoy reading do it more often and they tend to become skilled at it. Poor readers, by contrast, often display low motivation to read. One possible explanation of this is that reading skill and reading motivation influence each other. 15 studies were reviewed addressing the relationship between students' reading and competency belief or goal orientations. Results indicate that reading skills and motivation correlate, and support the possibility of a bidirectional relationship between the two. Mujiyanto (2015, 2016) promoted reading texts used in teaching and learning process by comparing the readability levels with the reasons for such existences and well as levels of equivalence. The ability to read is primarily to be improved to enable students to get

information. Actually reading is not an easy process because it involves the work, eye and brain almost to get information or message from the text. Nunan (2003, p. 68) stated in Rosyita & Faridi (2017, p.80) that reading is a fluent process of readers combining information from a text and their own background knowledge to build meaning, and the goal of reading is comprehension. Meanwhile, comprehension refers to the ability to go beyond the words, to understand the ideas and the relationships between ideas conveyed in a text (Rosari & Mujiyanto, 2016, p. 1). The students should be able to comprehend the text quickly and comprehensively.

There are many learning language strategies that are well connected with all the four language skills, they are speaking, reading, listening, and writing. Indonesian students need to apply the appropriate strategies in order to be able to have and acquire the skills above. Theoretically, Rebecca (1990, 8) believes that certain methods must be applied for effective reading comprehension to occur.

In this case, it means that reading methods can help students maximize their comprehension and identify relevant and non-relevant information. In reading, there are many reading methods to facilitate comprehension and to make their reading more effective such as speed reading, critical reading, proof reading, SQ4R (Survey, Question, Read, Recite, Write and Review), and SPE (Structure, proposition, Evaluation) teaching reading methods (Vandergrift, 1996, 65). By using those teaching reading methods can help students build up independence and control their reading. The explanation above implies that reading ability requires the students to be able to read the text effectively and efficiently. Not only are they reading rapidly but also comprehensively. Therefore, the students should master the way of good reading to read effectively and efficiently, as such that they do not need to spend much time to read they can understand their text completely. Faridi (2010) stated that it is important for teachers to design a model and evaluating it in teaching and learning process.

The teaching learning process will be creative if the teacher gives students opportunities to participate. When the students' English achievement is low, this is assumed because they do not participate in the teaching learning process. Sometimes, the teacher is communicating with the students while he is only sitting on the chair all the time. (Faridi, 2012, 55)

In academic issue, most people have heard about TOEFL test or even done it, even TOEFL has become very popular in the world. Educational Testing Service (ETS) announced TOEFL as the most widely-used and internationally recognized test to evaluate non-native English speakers' language proficiency. The statement from Educational Testing Service gives a reality that TOEFL is used in all over the world to test English proficiency of people who live in non-English speaking countries. Because of widely used and internationally recognized test, TOEFL is used all over the world included in Indonesia.

According to Chelsea (2002), TOEFL exam does not only test the English language mastery, but also test-taking skill. In this case, TOEFL is useful for the students who want to master English as well as possible. Besides, it is also useful to improve their skills of answering the questions of TOEFL test. In this part, the researcher wants to research TOEFL reading section. From preliminary research, it is found that the students have some problems in the reading section of TOEFL test. They are they get the difficulties to understand the sentences, they get bored while reading the text, they cannot manage the time as well as possible, and they are also unfamiliar with the words that have been read. It implies that it is necessary for teacher to understand the students' perception, and also their achievement (Riyadh & Faridi, 2017). Therefore, they need some strategies to solve those problems. It is reading skill-based strategies for TOEFL.

According to Guthrie (2000, 408), motivation is an important element in reading engagement; Motivational processes are the foundation for coordinating cognitive goals and

strategies in reading. For example, if a person is intrinsically motivated to read and believes she is a capable reader, the person will persist in reading difficult texts and exert effort to resolve conflicts and integrate text with prior knowledge. A learner with high motivation will seek books known to provide satisfaction.

Learning language strategies can also be classified into six groups: cognitive, metacognitive, memory-related, compensatory, affective, and social. The application of these all strategies have been found in many countries in which English is a second language to have positive influence to the students achievement (Adiguzel and Gurses, 2013; Serri, 2012; Shi, 2011; Takallou, 2011; Stephen and Xavier, 2010; Oze and Civelek, 2006). In this research, Cognitive and SPE (Structure, Proposition, Evaluation) strategies are chosen as reading methods, which will be trained in order to help students become successful reader. Both of methods are considered as the strategy that provide detail steps and more comprehensive reading strategy. Cognitive strategy is used to help students achieve a particular goal (e.g., understanding a text). The students interact with the material to be learned by manipulating it mentally (as in making mental images or relating new information to previously acquired concepts or skills) or physically (as in grouping items to be learned in meaningful categories or taking notes on or making summaries of important information to be remembered).

SPE strategy is also significant for students because this method involves the way of reader to analyze the matter and the problem from the material of reading text. The readers do not only extract the topic from the text, but also can do material judgment or evaluation to the reading text. So, the readers will be involved in deeper function in reading comprehension activity.

So far, there has been no other research doing this kind of research and realizing the fact happened in the field that students who learnt English in Indonesia face some difficulties in reading comprehension, there were some previous researchers have already done the

discussion in reading comprehension. However, this study is primarily concerned with Cognitive strategy and SPE (Structure, Proposition, Evaluation) strategy as the reading strategies and motivation level on students achievement in reading comprehension.

METHOD

This study was carried out by applying a quantitative approach with an experimental design with two times two factorial designs. There are three kinds of variables in this research, they are: independent variables: Cognitive and Structure-Proposition-Evaluation (SPE) teaching reading strategies, moderator variable: motivation (high motivated students and low motivated students) and dependent variable: students' reading comprehension.

There were two classes which were chosen as the sample of this study by using a purposive sampling technique. The writer took those sample because most of students of Civil Engineering got the lower score on TOEFL test than others. Moreover, the writer selected Civil Engineering students of A and B classes because both have the same amount students namely 24 students. The Class A was treated by using Cognitive strategy and the Class B was treated by using SPE strategy.

The instruments in this study were TOEFL reading comprehension test and motivation questionnaire. The reading comprehension test is a TOEFL reading test and it is used to measure the students' achievement in reading comprehension. The test of the students reading comprehension is in form of objective test with five optional based on teaching materials contained in TOEFL Program. The questionnaire used in this study was adapted from Motivated Strategies for Learning Questionnaire (MLSQ) developed by Pintrich & Groot in 1990. The result of the questionnaires is used to classify the students into two group levels of motivation. The type of the questionnaire in this research is Likert-Scale.

In testing hypothesis, two ways ANOVA 2X2 (Analysis of Variance) technique with

Paired Samples test at the level of significance 5% or 0.05 is used. Before two ways ANOVA is done, the normality of the test by using Kolmogorov-Smirnov test and homogeneity test uses Levene Statistic test. Then, to analyze the interaction between both independent variables toward dependent variable, test of Between-Subjects-Effects is used as the formula.

RESULT AND DISCUSSION

The primary purpose of this study was to find out the effectiveness of cognitive and SPE strategies in teaching TOEFL reading comprehension among the students with high and low motivation at Sultan Agung Islamic University. This study is limited in teaching reading for TOEFL preparation test. There are two experimental groups in this study. The first group is Civil Engineering Class A treated by using cognitive strategy. The second group is Civil Engineering Class B treated by using SPE strategy. The results of the research answered the seven research questions that were connected to seven hypotheses of this study.

The first research procedure was collecting the data from questionnaire. The students were assigned to complete the questionnaire to measure their motivation level. Based on the results of the students' questionnaire, the students were classified into high and low motivated students. Therefore, during the research, the students were classified as high and low motivated students. Each group consisted of 11, 12, 13 students.

The first research procedure was collecting the data from questionnaire. The students were assigned to complete the questionnaire to measure their motivation level. Based on the results of the students' questionnaire, the students were classified into high and low motivated students. Therefore, during the research, the students were classified as high and low motivated students. Each group consisted of 11, 12, 13 students.

The TOEFL tests have been reviewed according to ETS and TOEFL program procedures to ensure that all possible tests are

free of cultural bias. The use of reading comprehension section from paper-based Longman TOEFL was valid to determine the EFL learners' reading comprehension achievement in English since the reading section from Longman TOEFL provided the understanding on the test takers' English language reading skill for their academic success. the test was also reliable because the TOEFL test produces consistent result on repeated trials and that the test scores will have the same meaning and interpretation across the time. Test specifications, test questions, and test forms are strictly reviewed, following the ETS standards for fairness and quality (ETS, 2011). In conclusion, it can be said that Longman TOEFL ITP test 2006 was reliable for EFL learners. Furthermore, the following step was conducting the research procedures to the sample of this study. The students were provided some research procedures such as pre-test, treatments, and post-test.

The first step was the pre-test. Pre-test was administered to the first and second experimental groups. The aim of the pre-test was to provide evidence that the two groups had relatively equal competence in reading comprehension. The pre-test was conducted to the first and second experimental groups to the students with high and low motivation levels. After the pre-test was treatment. The treatment implemented Cognitive strategy and Structure-Proposition-Evaluation strategy.

The treatment for the first experimental group was using cognitive strategies. There were three main procedures for cognitive strategies. They were the first reading activities that consist of reading activity, making annotation, and discussion. Then, the next was the second reading activity. It consisted of re-reading activity, identifying the author's affirmation, providing supporting detail to the author's affirmation, analyzing the connection of the author's affirmation, and discussion. The last was the third reading activity. It consisted of re-reading activity, answering text-dependent questions, providing the evidence from the text to confirm the questions, and discussion.

The treatment for the second experimental group was structure-proposition-evaluation strategy. There were three main procedures for structure-proposition-evaluation. The first step was to make prediction and connection to the reading text. Afterwards, the students were assigned to read and analyze the reading. The last activity was reviewing and answering the questions to ensure the comprehension level.

After the treatment, the students were assigned to have post-test to measure the students' TOEFL reading competence after treatments. Finally, after collecting the data, the analysis and interpretation were conducted. The analyses were supposed to answer the seven research questions of this study. To answer the research questions, there were seven hypotheses that implemented null hypotheses (H_0).

The first statistical analysis was the normality and homogeneity tests. The sig. value for the pre-test in the first experimental group were 0.592 (the students with high motivation level) and 0.441 (the students with low motivation level). The significant level of $\alpha = 0.05$. The data for the pre-test in the second experimental group were 0.986 (the students with high motivation level) and 0.995 (the students with low motivation level). It means that the significance of both groups (0.592, 0.441, 0.986, and 0.995) were higher than the significant level of $\alpha = 0.05$. Therefore, the data showed that the pre-test data of the first and second experimental groups interpreted as a normal distributional data. After elaborating the pre-test data, the next analysis explained the data from the post-test.

In terms of data from post-test, the value of Sig. for the post-test in the first experimental group were 0.930 (the students with high motivation level) and 0.609 (the students with low motivation level). The data for the post-test in the second experimental group were 0.860 (the students with high motivation level) and 0.875 (the students with low motivation level). The sig. value of both groups (0.930, 0.609, 0.860, and 0.875) were higher than the significant level of $\alpha = 0.05$. Therefore,

the data showed that the post-test data of the first and second experimental groups were interpreted as a normal distributional data.

The next analysis was to investigate the homogeneity test. It implemented Levene Statistic Test. In terms of the pre-test data for both the first and second experimental group, the Sig. score was 0.206, in which it was higher than $\alpha = 0.05$. Therefore, the pre-test data for both first and second experimental groups were homogeneous. Then, the pre-test data based on motivation, the Sig. score was 0.888 in which it was higher $\alpha = 0.05$. Therefore, the pre-test data based on motivation were homogeneous. The following analysis dealt with the post-test data of both first and second experimental group. The Sig. score was 0.238. It means that it was higher than $\alpha = 0.05$, so that the post-test data for both first and second experimental groups were homogeneous. The last was the post-test data for motivation. The Sig. score was 0.208 in which it was higher than $\alpha = 0.05$. Therefore, the post-test data based on motivation were homogeneous.

The following elaboration analyzes the answer for the seven research questions of this study. The first question was to examine the effectiveness of cognitive strategy used in teaching TOEFL reading comprehension to the students with high motivation. Based on paired samples statistic, the mean score of pre-test was 26.67, while the mean score of post-test for the first experimental group was 42.50. The Sig. (2-tailed) value was 0.000 in which it was lower than $\alpha = 0.05$. Based on the data, it means that cognitive strategy was effective used for teaching TOEFL reading comprehension to the high motivated students. Therefore, the first null hypothesis was rejected in which it was concluded that there was a significant different between the value of pre-test and post-test of cognitive strategy used in teaching TOEFL reading comprehension to the students with high motivation.

The second research question was to examine the effectiveness of cognitive strategy used in teaching TOEFL reading comprehension to the students with low

motivation. From the data, the mean score of the pre-test was 24.00 while the mean score of the post-test was 32.00. The data shows that there is an improvement before and after giving the treatments by using cognitive strategy for the students with low motivation. Meanwhile, the Sig. (2-tailed) value from the paired samples test was 0.004. It has meaning that the Sig. (2-tailed) was lower than $\alpha = 0.05$. Based on the data, it indicates that cognitive strategy was effective used for teaching TOEFL reading comprehension to the low motivated students. Therefore, the second null hypothesis was rejected in which it was concluded that there was a significant difference between the value of pre-test and post-test of cognitive strategy used in teaching TOEFL reading comprehension to the students with low motivation.

The third research question of this study is about examining the significant effect of SPE strategy used for teaching TOEFL reading comprehension to the students with high motivation. The mean score of the pre-test was 28.00 while the mean score of the post-test was 45.07. Meanwhile, the Sig. (2-tailed) value from the paired samples test was 0.001 in which it was lower than $\alpha = 0.05$. It means that the null hypothesis is rejected. Based on the data, it can be concluded that there is a significant effect of SPE strategy for teaching TOEFL reading comprehension among the students with high motivation.

In relation with fourth research question, the mean score of the pre-test was 26.36 while the mean score of the post-test of the group treated by using SPE strategy for the students with low motivation was 42.00. The mean score of the post-test is higher than the mean score of the pre-test which means that there is an improvement after giving treatments for the students with low motivation. Meanwhile, the Sig. (2-tailed) value of the experimental group which was treated by using SPE strategy for the students with low motivation was 0.000. Because the Sig. value was lower than $\alpha = 0.05$, then the null hypothesis is rejected. In other words, the SPE strategy had given a significant effect in teaching

TOEFL reading comprehension to the students with low motivation.

Dealing with the fifth research question, the mean score of the mean score of the post-test of the first experimental group was 37.25 while the mean score of the post-test of the second experimental group was 43.67. The Sig. (2 – tailed) value of this study was 0,076 meaning that the null hypothesis was accepted. By doing so, there was no significant difference between two strategies when they are used for teaching TOEFL reading comprehension to students with high and low motivation. It means that the implementation of cognitive and SPE strategy had the same results to the students with high and low motivation because the students data from the post-test did not provide a significant difference.

Related to the sixth research question of the study, the mean score of the post-test of the students with high motivation was 43.84. On the other side, the mean score of the post-test of the students with low motivation was 36.78. Moreover, the Sig. (2 – tailed) value of the students' motivation was 0,0502 meaning that it was higher than $\alpha = 0.05$. It can be concluded that the null hypothesis (H_0) was accepted. To sum up, there was no significant difference between the students with high and low motivation after treated by using those two strategies. It means that the students with high and low motivation showed the same results in which the students' achievement data from post-test did not provide a significant difference. Both students with high and low motivation levels who were taught by cognitive strategy did not make a significant increase in terms of their reading comprehension. It also happened the same thing when the students with high and low motivation taught by SPE strategy. The findings showed that there was no significant difference between before and after the treatment. Therefore, the difference of the motivation levels did not show any significance.

The last purpose of the study was to find out the interaction between two strategies (cognitive and SPE strategies) and the students' motivation (high and low motivation), and

students' reading comprehension. It was computed through the implementation of Tests of Between-Subjects Effects. Based on the tests between-subject effects, the Sig. value of the test was 0.284 in which it was higher than $\alpha = 0.05$. So, the null hypothesis (H_0) was accepted. In conclusion, referring the null hypothesis of the study, it was concluded that there was no significant interaction among teaching strategies, students' motivation, and students' reading comprehension.

According to the research, the researcher concludes that cognitive and SPE strategies can be used to teach TOEFL reading comprehension. There is an improvement after the students were treated by using those two strategies. As stated from the study that was conducted by Mansoor Fahim, Marzieh Bagherkazemi, and Minoos Alemi (2010), the findings indicated a statistically significant advantage for those with greater motivation. Both strategies are good to be used in teaching TOEFL reading comprehension among the students with high and low motivation in order to enhance students' achievement. Besides, cognitive and SPE strategies can encourage the students' motivation in learning reading. Moreover, the students become more confident on their TOEFL reading skill.

CONCLUSION

This study focuses on comparing Cognitive strategy and Structure-Proposition-Evaluation strategy used for teaching reading comprehension among the students with high and low motivation. The data was taken from the Civil Engineering students of Sultan Agung Islamic University. The first experimental group is the students of Civil Engineering Class A treated by using Cognitive strategy. Another one is the students of Civil Engineering Class B as the second experimental group which was treated by using Structure-Proposition-Evaluation strategy.

According to the findings, this experimental study has shown the effectiveness of Cognitive and Structure-Proposition-

Evaluation strategies used for teaching TOEFL reading comprehension among students with high and low motivation. Then, the mean of pre-test and post-test show that there is a significant improvement happened to the students with high and low motivation after treated by using those two strategies. Based on the previous elaboration, both Cognitive and Structure-Proposition-Evaluation strategies are good to be used in teaching TOEFL reading comprehension among students with high and low motivation. However, this study did not show the interaction between the two strategies and students' motivation.

In the other side, the writer agrees that those strategies can be a good choice to be applied in teaching TOEFL reading comprehension. The students interest to the strategies which they never get before. Beside, the strategies can encourage their confidence in their reading skill. Moreover, it can help them in conducting reading comprehension especially in TOEFL test.

Overall, based on the data, both cognitive and structure-proposition-evaluation reading strategies did not provide a significant difference to teach reading comprehension to high and low motivated students. Although, at a glance, some students' scores for post-test in the first and second experimental group showed an improvement after treatment; but after conducting a further data analysis towards the students' score, the final data computation ended at the results that there was no significant difference of the effectiveness of cognitive and structure-proposition-evaluation reading strategies.

REFERENCES

- Adiguzel, Oktay Cem and Meral Ozkan Gurses. 2013. Students' Opinion Regarding Reading Strategies Instruction Based on Cognitive Academic Language Learning Approach. *Turkish Online Journal of Qualitative Inquiry*, 4 (3): 1-14.
- Chotimah, N. & Rukmini, D. 2017. The effectiveness of student team achievement division (STAD) and group investigation (GI) technique to teach reading comprehension to students with high and low motivation. *English Education Journal*, 7(1).
- Faridi, A. (2010). The Development of Context-Based English Learning Resources for Elementary School in Central Java, *Excellent Higher Education*, 1(1), 23-30.
- Faridi, A. (2012). Methods Used in Teaching English at Junior High Schools in Central Java. *UNNES International Conference on ELTLT (English Language Teaching, Literature, and Translation)*, p. 55 Available at: <http://proceedings.id/index.php/eltlt/article/viewFile/308/306>
- Funchs, D. (2007). *Motivation in Education*. New York : Council For Exceptional Children. <http://www.freepatentsonline.com/article/exceptionalchildren/157586953.html>
- Guthrie, J.T., & Wigfield A. (2000). *Engagement and Motivation in Reading*. New York: Erlbaum.
- Mujiyanto, J. (2015). Comparing Readability Levels of a Science Text and Its back – Translations. 4th ELTT International Conference Proceedings, 947-953.
- Mujiyanto, J. (2016). The Comprehensibility of Readable English text and their Backtranslation. *International journal of English linguistics*, 6 (2), 21-22.
- Mujiyanto, J. (2016). The Dependence of Verbal Passages on Visual Representation Meaning-Making. *International Seminar Prasasti III, Current Research in Linguistics*, 884-890.
- Ozek, Yesim K. and Muharrem C. 2006. "A Study on the Use of Cognitive Reading Strategies by ELT Students". *Asian EFL Journal*, August 2006: 1-26.
- Rebecca D, Alcantara and Josefina. (1990). *Teaching strategies I: for the Teaching of the Communication Arts*. Philippine: Katha Publishing Co., Inc.
- Riyadh, A.A., & Faridi, A. (2017). The Students' Perception and Achievement of

- English Reading Comprehension using Cognitive Language Learning Strategy. *English Educational Journal*, 2 (7), 139-148.
- Rosari, L. & Mujiyanto, Y. 2016. The effectiveness of know-want-learned and collaborative strategic reading strategies to teach reading comprehension to students with positive and negative attitudes. *English Education Journal*, 6(2).
- Rosyita, Ulya & Faridi, A. 2017. The effectiveness of theme-based instruction compared to competence-based language teaching to teach reading comprehension to students with high and low interest. *English Education Journal*, 7(1).
- Serri, F. 2012. Cognitive, Metacognitive, and Social/ Affective Strategies in Learning Comprehension and Their Relationships with Individual Differences. *Theory and Practice in Language Studies*, 2 (4): 843-849.
- Shi, C. 2011. A Study of the Relationship between Cognitive Styles and Learning Strategies. *Higher Education Studies*. 1 (1): 20-26.
- Stephen, Stanley Mohandoss & Xavier Pradheep Singh. 2010. "Learning Grammar Autonomously through Metacognitive Strategies: An Experiment". *Journal of NELTA*, 15 (1-2): 146-150.
- Sukarni, S., Rukmini, D., Sofwan, A. and Hartono, R. 2017. The Effectiveness of Strategybased Reading Instruction (SBRI) for Teaching Reading and the Students' Perception toward the Instruction. *International Journal of English and Education*, Vol.6, (3), 213-218
- Takallou, F. (2011). The Effect of Metacognitive Strategy Instruction on EFL Learners' Reading Comprehension Performance and Metacognitive Awareness. *Asian EFL Journal*.