

Vocabulary Analogy as Instructional in Enhancing Reading Comprehension

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Abstract

This research was designed to find out the effects of vocabulary analogy to reading comprehension of seventh grade students of State Junior High School 9, Yogyakarta, Indonesia. Specifically it sought to answer the following questions: 1) How is the effects in reading comprehension of the students taught with Vocabulary Analogy or without vocabulary analogy? 2) Is there a significant difference in the reading comprehension between the control and experimental groups based on the pre-test and post-test results? A test was conducted for control and experimental groups before and after the treatment process. T-test was computed to reveal whether there was a significant difference in the pre-test and post-test results of the control and experimental groups. Findings of the research were: 1) The use of vocabulary analogy improved students' reading comprehension 2) The computed T value based from the results of pre-test in the control and experimental groups is 0.130, lower than T tabular value of 1.996. This result accepts the null hypothesis that there is no significant difference in the results of pre-test of control and experimental groups. Moreover, treatments were given to control and experimental groups after the pre-test, control group was taught without vocabulary analogy and experimental group was taught with vocabulary analogy before the post-test for each group. The computed T value in the post-test of the control and experimental groups is 11.15, higher than T tabular value of 1.996 at 5% level significance. This result rejects the null hypothesis that there is no significant difference in the results of pre-test and post-test of control and experimental groups. Based on findings, the following conclusions were drawn: 1) The use of vocabulary analogy had significantly influenced students' reading comprehension particularly of the experimental group 2) There is significant difference in the post-test results of the control and experimental groups. Null hypothesis was rejected since the computed T value was higher than the T tabular value.

Keywords: *Vocabulary, Analogy, Reading Comprehension*

Introduction

Language is a system of communication consisting of sounds, words, and grammar used by people in particular area. Teaching language in education section especially in classroom

is to develop the learner ability in language structural units, such as sentences, vocabulary, words, morphemes, sounds. And then the teacher, lecturer or educators measure the learner the ability in that's all units (Arwood, 2011). The characteristics of language, language differences, language changes, language concept or language acquisition give unpredictable experience to the student in understanding and learning about language. Students are able to learn language naturally in daily life or formally in an educational institution.

In English language learning, there are two kinds of skills that should be mastered by the students: productive skills and receptive skills. Reading is one of the receptive skills that aims to find out some information or ideas in written materials. It must be supported by the requirement to master grammar and vocabulary. Without a good vocabulary, reading comprehension is poor and slow.

Moreover, reading is an extraordinary achievement when reader considers the number of levels and components that must be mastered. The words contain graphemes, phonemes, and morphemes. Sentences have syntactic composition, propositions, and stylistic

features. Vocabulary skill is needed in the process of word identification to comprehend the text (McNamara, 2007).

Richards & Rodgers, (2001) states that vocabulary is one of the most important aspects of foreign language learning; it influences the learning in understanding language skills especially in reading skill because words greatly assist in reading a foreign language.

The usage of adequate vocabulary skills becomes one of the important foundations in the development of reading skill. Learners need to accelerate thinking by considering English vocabulary system before expressing the ideas in form of language skills. Basic vocabulary is needed to guessing the meaning of the text, especially some text in form of different languages (Nunan, 2003).

One of the ways to improve reading comprehension is through the use of vocabulary analogy. This strategy is one of the best strategies in teaching students in developing vocabulary required in reading comprehension. Analogy is a comparison between two things usually thought to be different from each other, but have something in common. When one set of words is more familiar than the other, the meaning of the unfamiliar is illuminated by what is known

about the familiar. Through analogy, students are able to explore concepts and relationship of words. This recognition system provides concrete benefits for students to expand their knowledge to higher level of thinking.

Kusiak, (2013) states that vocabulary knowledge serves as the foundation for acquiring and developing reading. Vocabulary knowledge is important in reading comprehension. In order to understand the text, one needs to understand individual words.

Vocabulary analogy is a wonderful strategy which is a great interdisciplinary teaching exercise that develops students' skills in these following areas: visual imagery, reading comprehension, paying attention to details (word sequence within word pairs), vocabulary development, synonym, antonym, homophone, recognition and recall, understanding different shades of word meanings, reasoning, and standardized-test taking (Foster, 2011).

Since English subject is required only in Junior to Senior High School in Indonesia, there are no English subjects in the Elementary level. Seventh grade students should have adequate vocabulary skills as basic foundation before mastering other skills in English in order to understand the

kinds of texts like short functional texts, descriptive texts, and procedural texts (BNSP, 2006).

Students' limited knowledge in English had added difficulty in teaching English subject, especially in reading comprehension. Through vocabulary analogy, students' comprehension may be improved. Thus, this research was made.

This research aims to find out the effects of vocabulary analogy to reading comprehension of seventh grade students of State Junior High School 9, Yogyakarta, Indonesia. Specifically it seeks answers to the following questions:

1. How is the effect in reading comprehension of the students taught with vocabulary analogy or without vocabulary analogy?
2. Is there any significant difference in reading comprehension between the students who are taught through vocabulary analogy and the students who are taught through current way?

The objective of the research formulated as follows:

1. To find out the effects in reading comprehension of the students taught with vocabulary analogy or without vocabulary analogy.

2. To find out whether the vocabulary analogy has any significant effect to improve students' reading comprehension or not.

This research focuses on the effects of vocabulary analogy as a strategy in improving reading comprehension, especially in comprehending descriptive texts of seventh grade students of State Junior High School 9, Yogyakarta, Indonesia. This study is supported by several theories and concepts that became basic foundation for the research: Bruner's Constructivist Learning, Oxford's Language Learning Strategies (Memory Strategy), and Nunan's Cultivate Vocabulary.

Constructivism theory is a scientific study about how people learn. Learners construct their own understanding through experiencing things and reflecting upon the experiences. Learners should construct their own knowledge and use coding system to organize and categorize the information. Coding system is the most effective way to develop students' knowledge because the concept of discovery learning makes

the students construct their own knowledge for themselves.

Moyle and Wijngaards (2012) cited Bruner in "Student Reaction to Learning with Technologies: Perceptions and Outcomes" state that the constructivist theory of learning holds that people learn by constructing their own understanding and knowledge of the world through experience and reflecting upon that experience. People are active creators of their own knowledge, reconciling previous ideas as they encounter new experiences and information. People may change their ideas or discard the new information, based on investigations, asking questions, assessing and negotiating.

Xing (2009) cited from Oxford in "Contemporary studies in Descriptive Linguistics" states that language learning strategies are divided into two main classes (direct and indirect) with six groups of subdivision. These are memory strategy (memorize and recall information), cognitive strategy (producing and comprehending the language), and compensation strategy (language organization) in direct strategy. Metacognitive strategy

(learning process management), affective strategy (emotions management), and social strategy (socially learning management) are included in indirect strategy. Direct strategies is utilized to language in various situations (acquiring or usage) and indirect strategies utilized to manage all the process of learning (organizing, guiding, checking, or coordinating).

Review of Related Theories

Memory strategy is one of direct strategies that can solve learner's vocabulary problem especially for the beginner. This strategy includes: (1) using pictures or imagery, (2) linking new words with the known words in terms of relationship, like: synonym, antonym, and word association, (3) linking unrelated words, (4) grouping the words based on its meaning, pattern, or its use in case of sentence or texts, (5) focus on the form of the words (orthographical and phonological form), (6) word analysis, such as: affixes, root, and word class, and (7) physical actions and semantic feature grids.

Kail and Cavanaugh (2010) state that memory strategy is "an aid for remembering information". There are two kinds of memory strategy: organization

memory strategy which is structuring information to be remembered by gathering all of related information together and then elaboration memory strategy which is embellishing information to be remembered and make it more memorable.

Nunan (2003:53) suggests cultivate vocabulary as a technique to enhance vocabulary ability in case of reading development. One of cultivate techniques is word webs, which is a very good activity for building students' vocabulary skill. Teachers begin by giving a key concept of the word. Choose a concept that is central to the reading text and then let the student to work individually, in small groups, or as a class in building the relation of words. Cultivate vocabulary facilitates the student to construct the meaning and understanding of words analogy concepts easily and clearly. There are several techniques of cultivate vocabulary, such as: puzzle, scramble, word tree, crossword, word search, matching, word map, word square. These techniques will support vocabulary analogy in order to improve students' reading comprehension. Association of cultivate techniques, memory strategies, and students' constructivism provide a brief information and clear direction or instruction for the students in the learning

process. Vocabulary analogy concepts prepare a technical strategy to make the process of memorizing and recalling information easier. Brief introduction should be given by the teachers before starting the lesson in order to attract students' focus and interest about the topic of the lesson.

By putting together all the above-mentioned theories and strategies, the researcher arrived at his own theory called "Vocabulary Association Theory" which aims to develop or enhance the vocabulary skills of students in comprehending a given text.

Research Methodology

Cresweel, (2008) states that experimental is a research method that can test hypothesis concerning cause an effect relationship. Experimental is a procedure in quantitative research which the investigator determines whether an activity or material makes a difference in result for participants. This research uses quasi experimental method. In quasi experimental there should be at least one experimental group and control group. Fraenkel and Wallen, (2006) stated that there are two kinds of quasi experimental designs, those are: matching only- design,

counterbalance design, and time series design. Then, matching only- design is divided into two kinds; those are matching post-test only of control group design and the matching-only pre-test and post-test of control group design.

In this research, both groups were given a pre-test with same material to identify the students' reading ability before the treatment. Each groups are given different treatment, the experimental group is taught using vocabulary analogy and control group is taught without using vocabulary analogy

Population is an aggregate or totality of all the objects, subjects and members that conform to a set of specifications. The population of this research is the entire seventh grade students of State Junior High School 9 of Yogyakarta. Sample is the group of elements or a single element from group of subjects of the research. Nueman, (2007) states that for small populations (under the topic of 1.000), a researcher needs a large sampling ratio (about 30 percent). The sample of this research is two of classes of the seventh grade students of State Junior High School 9 of Yogyakarta, class 7C as the experimental group and class 7D as the control group.

Instrument is the tool used to collect the data. Instrument is a facility that is used to collect the data of the research. Instrument also can be defined as tools for measuring, observing, or documenting quantitative data (Craswell, 2008).

In this research, the instrument is number of items of pre-test and post-test to collect the students' score that can be represent their reading comprehension before and after treatment.

1. Observation

This technique is used to know the condition and the actual number of seventh grade students of State Junior High School 9 of Yogyakarta.

2. Pre-Test

Pre-test was conducted to measure the students' reading comprehension before treatment. There are two pre-tests for experimental group and control group.

3. Treatment (Experiment)

The treatment will is in eight meetings for experimental group using vocabulary analogy and eight meetings for control group using traditional method.

4. Post-Test

Post-test was conducted for the control and experimental groups after the treatments to determine the effects of vocabulary

analogy in improving students' reading comprehension.

There are two techniques of data analyzing in this research; they are descriptive analysis and inferential analysis.

1. Descriptive Analysis

Creswell, (2008) states that descriptive analysis indicates general tendencies in the data (mean, mode, median), the spread of score (variance, deviation, and range), or a comparison of how one score relates to all others. The descriptive analysis is use to find the avarage score. In this research, the data will be interpret based on the mean and the standard deviation.

2. Inferential Analysis

The inferential analysis is to provide the answer if there is a significant difference between control and experimental groups. The inferential statistics are test of normality, test of homogeneity, and test of hypothesis.

Scoring of the Test

A standard criterion was used to find out the level of students' performance in pre-test and post-test results (Broto, 2006). Table 2 will show the criteria of students' performance.

Finding and Discussions

This research aimed to find the effects of vocabulary analogy to reading comprehension of seventh grade students of State Junior High School 9, Yogyakarta, Indonesia.

Specifically, it sought answers to the following questions:

1. What are the pre-test and post-test results in reading comprehension of the control and experimental groups?
2. Is there a significant difference in the reading comprehension between the control and experimental groups based on the pre-test and post-test result?
3. What interactive instructional material in vocabulary analogy can be developed?

This research was delimited on the effects of vocabulary analogy in improving students' reading comprehension, focusing on descriptive text. This research was conducted at seventh grade students of State Junior High School 9, Yogyakarta.

The research, which is in quasi experimental research, determined the effects of vocabulary analogy in improving students' reading comprehension. This research used several statistical tools to measure the data, such

as: mean, standard deviation, homogeneity

test, T- and
For the test,
pre- the test,

Score	Verbal Interpretation
80-100	Excellent
60-79	Very good
40-59	Good
20-39	Fair
0-19	Poor

computed mean of the control group was 73.01, while for experimental group the computed mean was 73.16. Both of control and experimental groups have similar performance in reading comprehension. The data revealed that both groups were very good in the pre-test result. For the post- test results, the computed mean of control group was 77.28, while for the experimental group was 89.56. The data revealed that control group is in very good level, while experimental group reached excellent level in the post-test result.

There was a significant difference in the reading comprehension between the control and experimental groups based on the pre-test and post-test result. The computed t-value in the post-test of control and experimental groups was 11.15 which is higher than Tabular value of 1.996 at 5% of level significance. This result rejects the null hypothesis that there

is no significant difference in the reading comprehension between the control and experimental groups.

Based from the explanation above, it can be concluded that the mean scores of the control and experimental groups in the pre-test and post-test were significantly

varied. It means that vocabulary analogy had improved students' reading comprehension and there was a significant difference in the performance of the students in post-test results. Null hypothesis was rejected since the computed T value was higher than the T tabular value.

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