The Use of Modified Word Analogy in Improving English Vocabulary Mastery of Seven Graders

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Abstract-_Teaching vocabulary should exactly get big portion of concern in teaching English at elementary level due to the importance of vocabulary mastery in providing strong basis of mastering the four skills; listening, speaking, reading, and writing. Modified word analogy is a vocabulary teaching strategy combining between word analogy and other vocabulary activities that is supposed to build memory strength and ability to see relationship between two word pairs. This study aims to investigate the effectiveness of modified word analogy and to identify the way of modified word analogy helps the seven graders in improving their English vocabulary mastery._

A mixed methods research design is applied in this study. For getting quantitative data, a within-group experimental research design with pretest and posttest is conducted to the 29 seven graders. Then, for getting qualitative data, teaching-learning procedure and classroom observation are described.

The finding and analysis shows that the result of statistical analysis indicates that modified word analogy gives a significant effect on the students' vocabulary mastery. The obtained eta squared value of paired sample t test for two kinds of test are 0.77 and 0.62. Each of the values indicates a large effect size which is greater than 0.13 according to Cohen's guideline. While from qualitative side, the result comes from the observation notes of students' involvement and some of their writing products. In writing product in terms of students' lexical choices, except antonym, the three other types of word analogy i.e. classification, performer & action, and synonym are appeared on their works. Regarding to the observation notes of the four different types of word analogy (i.e. classification, performer & action, synonym, and antonym) after some preceding vocabulary activities, students' participation and discussion generally shows the same upright level of excitement in all of the four types or word analogy. Meanwhile, the proportion of groups which is able to answer the exercises completely is fewer for the synonym and antonym than for classification and performer & action. The use of a full descriptive text and dealing with new cross-associated words (especially antonym) are two things that make students cannot finish the exercises on time. At last, the proportion of students who is able to find and explain some words having relationship by using word analogy is very few in all of the four word analogy types due to time limitation. Thus, text choice, cross-association, and time management are three points noted as some issues in this study. However, above all, the modified word analogy that combines both the initial step of introduction of new words and vocabulary reinforcement is ideal for vocabulary development in language teaching.

Keywords- _Modified Word Analogy; Vocabulary Mastery; Improving_

1. INTRODUCTION

Teaching English as a foreign language in Indonesia shows a dynamic progress from time to time. There was a shift from rotten grammar translation method to the teaching with communicative method, and then it has continued to the latest called scientific approach. Unfortunately, it does not guarantee the successful of the students in English subject. For example, the report of national examination score which mostly junior or senior high school students only gained score below the average or target. There were some certain competency attainments of the national examination that decreased drastically from 2012 to 2014 in those both two levels (Balitbang Kemdikbud, 2014)[3]. Specifically, the competency attainments in junior high school examination dealing with vocabulary mastery that showed the decrease were word arrangement, random sentences, and text completion. Then, the concern of

providing students with vocabulary knowledge is crucial, especially in elementary level.

Vocabulary knowledge including form, meaning, and use are three aspects that should be considered to be covered when teaching vocabulary (Nation, 1990[26]; Thornbury, 2002[42]). To make vocabulary learning not being monotone just like repeating newly learned words, and to get a word sticks long lasting in memory, it demands cognitive involvement. Modified word analogy is expected can fulfill the challenge of teaching vocabulary. It is a vocabulary teaching strategy combining between word analogies i.e. classification, performer and action, synonym, antonym and other vocabulary activities e.g. selecting task, matching task, etc. This strategy is supposed to build memory strength and ability to see relationship between two word pairs.

In the context of teaching English as a foreign language in Indonesia, providing students a vocabulary activity that

makes a new word can stick in students' long term memory before working with word analogy is a necessary. Thus, to made it applicable and fulfill the need, the word analogies (e.g. Elliot; Smith, 2002[40]) were modified with some other preceding vocabulary activities like identifying, matching, selecting tasks etc. suggested by Thornbury (2002)[42]. By modifying the word analogy with preceding vocabulary activities that demanded brain working, the initial step of introduction of new words and vocabulary reinforcement could be applied altogether at once.

Thus this study is conducted to investigate the effectiveness of the modified word analogy and to identify the way of the modified word analogy helps the seven graders in improving their English vocabulary mastery.

2.   REVIEW OF LITERATURE

2.1 Knowing a Word

For a foreign language learner, especially English learner, having a bunch of vocabulary is a good start to be able to interact with the worldwide English users. There are three aspects that should be considered in order to know a word which is called the learning burden of a word by Nation (2001)[27] i.e. word meaning, word form, and word use. In line with Nation, Thornbury (2002)[42] said that at very least learners need to learn both the meaning and the form of a new word.

2.2 Analogy and Word Analogy

An analogy is an attempt to explain something relatively unfamiliar by referring to something different but more familiar, saying in effect, "This is like that" (Ruggiero, 2012)[35]. The importance of analogy as a central part of human intelligence and cognition lies on its role to cover various cognitive abilities like memory access, adaptation, learning, reasoning and creativity in its construction process (Gust, Krumnack, K¨uhnberger, & Schwering, 2008)[14]. Due to the importance of analogy, nowadays, the term analogy has been broadly used in various fields; from the cognitive, linguistics, law, to the educational areas try to reveal the power of analogy. If in the previous time, analogy is best known only as a testing tool and predictor of mental performance and intelligence. Today, the use of analogy has been also developed in educational field. It is also adopted in practicing analogy to teach vocabulary to the students.

A word analogy is a comparison between two pairs of words (e.g. Wormeli, 2009[47]; Smith, 2002[40]). To answer analogy questions correctly, the students are leaded to think about two words and discover the relationship between them. Then they have to match that relationship with one shared by another pair of words. In addition, when students study analogies, they think the precise meanings of words and fix these definitions in their memory. Example of word analogy: Find: Locate: Lose: Misplace adapted from "Vocabulary Practice and Tests" by Elliot.

2.3 Vocabulary Mastery in Second Language Learners

After discovering the learning burden to be tackled, it is important to decide the vocabulary learning goal regarding to the aspects of what is involved in knowing a word or the learning burden. There are some learning goals suggested by Nation (2001), for instance when learners present words they have met, the learning goal is the learners can develop an awareness of what is involved in knowing a word. The next factor that should be considered in leading a second learner in mastering a new language like English is that second language acquisition often occurs during classroom activities where specific, targeted English skills are being taught, rather than through the hands-on experiences typical of first language acquisition. Children are challenged to learn English quickly, while keeping up with the new concepts introduced in their classes every day.

Furthermore, Haynes and Baker (1993)[15] in a comparison of native speakers and second language learners learning from lexical familiarisation concluded that the major reason for second language learners relatively poor performance was the presence of unknown vocabulary in the definitions provided in the text. Both native speakers and non-native speakers experienced some difficulty with familiar words that were used in narrower ways, mainly through not giving enough attention to the clues in the text. Thus, the lack of knowledge in definition or meaning of a word is the main thing that should be put in work to be conquered.

2.4 Teaching Vocabulary through Modified Word Analogy

It seems interesting to explore the use of analogy in language teaching-learning setting. The use of learning by analogy in language learning has been introduced by Elliot through word analogy and Schmitt (2000)[37] through word grouping. Teaching vocabulary through modified word analogy in this study referred to a vocabulary teaching strategy combining between word analogy (i.e. classification, performer and action, synonym, antonym) and other vocabulary activities (e.g. selecting task, matching task, etc.). The modification was needed since the L2 students had to have some existing vocabulary knowledge before reaching the word analogy. There were two stages in this activity; they were introductory vocabulary activities to activate students' memory and grouping strategy to introduce unfamiliar new word pair with familiar-known word pairs that are similar in some respect. This strategy was supposed to build memory strength and ability to see relationship between two word pairs.

The highlight of the teaching-learning procedure would be as follows; Firstly, students were encouraged to know the meaning, form, and/or use of a certain word by giving them some of the vocabulary activities proposed by Thornbury (2002)[42] such as decision-making tasks (e.g. identifying, selecting, matching, sorting, ranking and

sequencing), production task (completion, creation), and games. Then, the vocabulary size was expanded by word analogy strategy focusing on the understanding of relational aspects of the analogues word pairs. This strategy was embedded in the vocabulary activities that are covered in lesson plan. It is essentially to be noticed that before end up with word analogy, students have to be taught the word definition whether through classification, performer and action, synonym, or antonym.

3   METODOLGY

3.1 Research Design

A mixed methods research design was applied in this study. A mixed methods research design is a procedure for collecting, analyzing, and "mixing" both quantitative and qualitative methods in a single study or a series of studies to understand a research problem (Creswell & Clark, 2011)[7]. For obtaining quantitative data, it was a test to the sample. More detail, a within-group experimental research design is conducted where there is a need to choose only experimental group with no control group (Creswell, 2012)[6]. The one-group pretest-posttest design includes three steps: (1) administering a pretest to measure the dependent variable; (2) applying the experimental treatment X to the subjects; and (3) administering a posttest, again to measure the dependent variable (Ary, Jacobs, & Sorensen, 2010)[2].

The one-group pretest-posttest design in this study was started by giving the sample pre-test which was consist of 20 multiple choices and 1 writing test. Then, the group was being intervened by giving students a serial of treatment with four different types of word analogy for each meeting. Finally, the post-test was conducted after the intervention. In conducting the treatment, the word analogy strategy was inserted in the vocabulary activities given to the students. There were three main procedures that embedded on each of the lesson plans, they are:

Students were encouraged to know the meaning, form, and/or use of a certain word by giving them some of the vocabulary activities such as matching, selecting, and describing task.

Giving word analogy strategy to expand the vocabulary size which was focusing on the understanding of relational aspects of the analogues word pairs. There were four types of word analogy to be included: (1) Classification; (2) Performer and action; (3) Synonym; and (4) Antonym. In this step, a word analogy type was introduced to the students by using Elliot's method (e.g. cat: pets :: snake : reptiles is explained that cat is classified as a pet, just a snake is classified as a reptile).

Administering two kinds of assessments after each treatment which were multiple choice analogy question and speaking or writing test.

During the treatment activities, qualitative data were also collected by doing classroom observations. Then, both quantitative data and qualitative ones were related in the form of interpretation.

3.2 Procedure

There were two research questions addressed in this study using the mixed method design as follows:

Question 1: The effectiveness of modified word analogy

To answer this question, this study applied the quantitative method with test (pretest and posttest) as an instrument. The function of the test was to measure and to compare the students' vocabulary mastery before and after the treatment conducted. The test consisted of 20 items of multiple-choice consisting of word analogy questions and a writing test of describing animal. The pre-posttest was developed by including some items in multiple-choice question that represent the word analogy types such as classification, performer and action, synonym, and antonym. For writing test, it was an essay that the students were asked to describe an animal in terms of the animal classification, movement and sound that the animal makes, and other characteristics of the animal.

The test content was supposed could cover the material given through lesson plans in order to give a content validity evidence (Creswell, 2012). The lesson plans were built by considering the curriculum (K13) used in the school. In the curriculum, transactional text about animals was one of the subjects taught to the grade seven students. To make sure the modified word analogy strategy was in line with the curriculum, the four types of word analogy (classification, performer and action, synonym, and antonym) were chosen because of their compatibleness to be inserted in the subject. There were two basic competencies (KD) in teaching transactional text about animals based on curriculum 2013 adapted in the lesson plan of this study, they are Kompetensi Pengetahuan 3.4 and Kompetensi Keterampilan 4.4 (Kemendikbud, 2016)[3]. The main point of these competencies was about gaining knowledge of social function, text structure and language aspect of a short spoken or written transactional text about people, animals, or things.

The effectiveness of modified word analogy in improving vocabulary mastery was identified statistically by using test as the instrument. So, the data had been analyzed quantitatively by using SPSS 20.0 for Windows to know whether the difference before and after the treatment was statistically significant. To set the significance of the study finding, this study calculated the effect size of the tests result (Pallant, 2010)[31]. Effect size is a means for identifying the practical strength of the conclusion about group differences or about the relationship among variables in a quantitative study (Creswell, 2012)[6]. In this case, to measure the effect size meant to measure the degree of association between an effect which was the treatment using modified word analogy and the dependent variable which was the vocabulary mastery. So, it was supposed to find out the correlation between an effect (modified word analogy strategy) and the dependent variable (vocabulary mastery). Furthermore, to interpret the strength of the effect size of the treatment toward student's vocabulary mastery, the study used Eta squared

proposed by Pallant (2010). The formula of Eta squared (Eta^2) was presented as follows:

$$Eta\ squared = \frac{t^2}{t^2+(N-1)}$$

Then, in interpreting the Eta squared, Cohen (1988) [5] guideline was taken into account as presented in the following table.

Table 3.2
Cohen's Guideline

Size	Eta squared
Small	0.01
Medium	0.06
Large	0.13

The table 3.2 shows that the obtained Eta squared analysis range into three size; small, medium, and large effects. This guideline was being the main threshold in determining the effect size of the treatment using modified word analogy strategy to improve student's vocabulary mastery.

Question 2: How modified word analogy helps students to master English vocabulary

To answer this question, this study applied both quantitative and qualitative method. So this study included two kinds of instrument. They were:

  a. Assessments per meeting in treatment as the quantitative data instrument

This study was conducted to improve students' vocabulary mastery through modified word analogy. During the research, the sample was treated with four types of analogies. The treatment was conducted based on school schedule. It was held four times and there was a students' assessment in every meeting. Each of the assessments was multiple-choice analogy question and speaking or writing test.

  b. Teaching-learning Procedure and Observation as the qualitative data instruments

Teaching-learning procedure was an important element in conducting a treatment. The step by step classroom activity was analyzed in order to give detail confirmation of the assessment result. Observation was conducted during the treatment managed by the researcher four times (classroom observation). Observational checklist was the tool used in this section. There were four aspects that had been observed toward the students during the classroom activity: (1) students' participation in teaching learning activity, (2) students' discussion about learning vocabulary through word analogy, (3) the proportion of groups which was able to answer exercise about vocabulary using word analogy, and (4) the proportion of students who was able to find and explain some words having relationship by using word analogy.

3.3 Subjects

This study selected a seven grade class in SMPN Model Terpadu Madani Palu which was the school had implemented the curriculum 2013. Bantilan class with 29 students in the academic year 2017/2018 was chosen as

subjects of the study to be given the test and treatment, and observed.

4 DATA ANALYSIS

In analyzing the data, there are three concurrent flows of activity; they are data condensation, data display, and conclusion drawing or verification (Miles, Huberman, & Saldana, 2014)[25].

4.1 Data Condensation

The first step after having raw data is the process of choosing precise data that give information needed. Data condensation refers to the process of selecting, focusing, simplifying, abstracting, and/or transforming the data that appear in the full corpus of written-up field notes, interview, transcripts, documents, and other empirical materials (Miles, Huberman, & Saldana, 2014)[25]. As a first part of analysis, this step started with focusing on quantitative data that was to collect the scores of test and assessment to be analyzed statistically with SPSS 20.0 for Windows. Then, the results of observation as the qualitative data were selected and summarized to be analyzed descriptively.

4.2 Data Display

Data display is about presenting the analyzed data in certain platform that give a visual image of the significant information to the reader. Generically, a display is an organized, compressed assembly of information that allows conclusion drawing and action....Looking at displays helps us understand what is happening and to do something – either analyze further or take action – based on that understanding (Miles, Huberman, & Saldana, 2014)[25]. In this part, the quantitative data from test were displayed in the form of the result of computing the means score of each group on pretest and posttest, computing the square deviation, and analyzing the effectiveness of the treatment or the difference result of pretest and posttest. Then, the data from assessment were also scored and analyzed descriptively. Based on the condition above, Paired Sample T Test in SPSS 20.0 for Windows was used as the appropriate formula to analyze the data.

The qualitative data from classroom observation were also analyzed descriptively by interpreting and relating it to the research questions. There are many types of display form such as list, table, matrix, graph, chart, and network that can be used to show the organized information of the data (Miles, Huberman, & Saldana, 2014)[25] that could be chosen in this part of presentation.

4.3 Conclusion Drawing/Verification

In this last part of the analysis activities, this study adapted explaining result model by Creswell (2012)[6] to analyze and interpret both the quantitative and qualitative data. Besides drawing a conclusion of the significance levels of the modified word analogy treatment, this study also drew a conclusion of the way of the teaching learning activity could boost the students' understanding of the word analogy and at the same time enrich their vocabulary size.

By drawing a conclusion of the significance levels of the modified word analogy treatment, this study is supposed to give some information whether it declines, supports or gives extended explanation of the prior finding of Gentner and Klibanoff's study (Gentner, 2003)[11] that is in their early age, children already have an ability of simple analogy processing. The other expected result of this study is that by embodying the word analogy in vocabulary teaching through a designed lesson plan, it can hopefully give an alternative variation of word analogy teaching as suggested in "Vocabulary Practice and Tests" handout by Robert Elliot.

5 RESULTS

5.1 The Effectiveness of Modified Word Analogy to Improve Students' English Vocabulary Mastery

In investigating the effectiveness of the treatment, all data obtained from the pretest and posttest were analyzed by using Paired Sample T Test to find the mean of each type of tests (multiple choices and writing test) and the effect size (Eta squared) of the treatment. This formula was used because the compared data was just taken within one group.

There was a significant increase score in both the word analogy test and vocabulary writing test from pretest to posttest after the treatment implementation. The total participants of experimental class were 29 students. The mean score of the first type of test increased from 30.172 for pretest to 44.482 for posttest. Then, the mean score of the second type of test also increased from 52.069 for pretest to 73.965 for posttest. Furthermore, the effect size is shown by obtained eta squared value of paired sample t test. For two kinds of the test, the value score are 0.77 and 0.62. Each of the values indicates a large effect size which is greater than 0.13 according to Cohen's guideline.

5.2 The Way of Modified Word Analogy Helps Students to Improve their English Vocabulary Mastery

In this section, the second research question of how modified word analogy can be used to improve vocabulary mastery is answered by focusing on the purpose to find out the procedure of modified word analogy that was implemented to the subjects as a means to improve the students' vocabulary mastery and analyzing the classroom observation list to see the students' engagement during the classroom activity. The result of the assessments conducted after each treatment seemingly needs to be presented to recognize the flow of students' achievement.

The mean score of classification assessment was 68.28 that just differ 2.76 points higher from performer and action assessment with 65.52. Then, the mean score of synonym and antonym assessments became the two lowest scores which were 52.41 for antonym assessment and 49.31 for synonym assessment. It seems that despite synonym and antonym had been familiar for the students, they needed many more vocabulary exposure before end up with the analogy. However, above all, the four word analogy types had given variation in vocabulary activities which were classification and performer & action helped students to describe something in English and synonym and antonym helped them to master the English-English meaning.

The way of word analogy (classification, performer and action, synonym, and antonym) implemented in the four times treatments gave a positive contribution for helping students to improve their vocabulary mastery. It was possible due to the learning procedure not only provided the students with word analogy exercises but also was created by combining the word analogy with other vocabulary activities like matching, selecting, and completing tasks.

The implementation of the teaching-learning procedure became a determining factor in getting students' attention so that they willingly participated during the treatments. Observational checklist was used to notice the students' attention in terms of their participation in teaching learning activity, their engagement in discussion about learning vocabulary through word analogy, the proportion of groups who was able to answer exercise about vocabulary using word analogy, and the proportion of individual who was able to find and explain some words having relationship by using word analogy.

On first treatment, the students actively did the tasks without facing significant difficulties. Most of them had known the animal names, the only problem they met was in making classification of the animals. Sometimes, they needed to ask teacher to confirm their works. The second treatment learning about performer and action analogy was the most challenging activity for the students. Most of them only participated when called on and just a few of them volunteered in mime game. But overall, they were getting into the game where they enjoyed mimicking and guessing the cat's movements and sounds. Doing synonym and antonym tasks in the two last treatments were quite easy for the students because they had familiarized with the two subjects. All the students participated actively in doing synonym matching task and antonym word pair race. Only on performer and action treatment the students really engaged in discussion. In this treatment, the students needed extra time to do selecting task where they got a full text about a cat and they should find out some verbs in the text regarding to what the cat did. Most of the students had some bold discussion in group about verbs they had been choosing. On the classification treatment, there was a student who questioned a plural word in crossword puzzle and some of them asked teacher to confirm whether they made correct answer for the animal classification or not. Then, on synonym treatment, the discussion was initiated when some students asking about adjectives in selecting task even after the example and explanation. Thus, teacher should define and made some other examples about it to the individuals personally. While on the antonym treatment, the students just asked teacher difficult words

they found, for example they asked the difference between furry and fur.
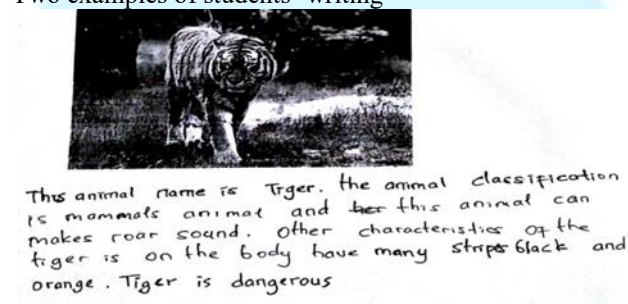
On the classification treatment, all the seven groups did the exercises with their friends and consulting to dictionary or to teacher. Then, on the performer and action treatment, not all groups completed the tasks on time. Two groups had difficult words left. There were also two groups on the synonym treatment that didn't finish the selecting task. While on antonym treatment, all groups completed the task on time, but some of them got wrong answer in some of the antonym pairs.

In four times treatments, less than half of the students who volunteered or participated when called on to make their own word analogy. On the classification treatment, there were two students who gave their own classification analogy; 1. elephant : mammals :: pencil : stationary, 2. carrot : vegetables :: banana : fruits. Then, only one student who volunteered in giving a performer and action analogy on second treatment; fish : swim :: student : study. It was quite challenging for the students to make their own word analogy in synonym treatment without a help from teacher and consulting dictionary or their notes. To get the students' participation, teacher provided two analogue pairs with blanks on each pair e.g. small : …. :: cute : …., then asked students to fill the blanks with the words' synonym by consulting their dictionary or notes. On the last treatment, teacher pointed out two students to find an adjective pair that had opposite meaning in Indonesian and the rest of class should find their English, the two students give the examples in Indonesian; kiri : kanan :: marah : tidak marah.

The assessment result of post-test in writing is also beneficial to be presented in order to see the lexical choice of students in the area of classification, performer & action, synonym, and antonym in their works. When the students were asked to describe a tiger with some helps like picture and hints, most of them tended to use same words that refer to the classification and performer & action of the animal that they had known. Then, for mentioning the other characteristics of tiger, the students used some different words that have similar meaning (synonym) such as wild vs. dangerous, carnivore vs. eat meat, grumpy vs. angry vs. cruel. Yet, antonym was not found used by students in their works. The following pictures are two examples of the students' works:

Picture 5.2

Two examples of students' writing

This animal name is Tiger. the animal classification is mammals animal and this animal can makes roar sound. Other characteristics of the tiger is on the body have many stripe black and orange. Tiger is dangerous

That's a tiger. It in mammals. Tiger has a movement the movement is walk, and it has sound, it sound its "roar". It is so wild. and has orange and black skin color.

From the analysis of the assessments results and the classroom activities, it can be summed up that among the four word analogy types, synonym and antonym were the hardest ones for the students. Unlike in classification or performer and action using vocabulary related to animals where students already had some previous knowledge about name of the animals, their classifications, and even their movements and sounds, in synonym and antonym analogy using adjectives, the students barely had that memory storage filled with two unfamiliar English adjectives having similar or opposite meaning. To know if two new words were synonym or antonym, the students needed to translate them first in Indonesian. It can be said that the challenge of using synonym and antonym analogy to non-native English students was that teacher should provide students first with qualified vocabulary activities before giving them the pattern of the word analogy. However, in general, the modified word analogy strategy can be used as a useful means in vocabulary activities to enlarge students' knowledge of the English-English translation, describing something in English, and stimulating analogical thinking process in finding a relationship between two objects.

The result and description above show the way of word analogy helped the students improve their vocabulary mastery in terms of words' form and meaning used in classroom setting.

6 DISCUSSION

6.1 The Effectiveness of Modified Word Analogy to Improve Students' English Vocabulary Mastery

The result of this study reveals that the modified word analogy can be used as a quite effective strategy to improve students' vocabulary mastery, especially word's meaning and form. This study has proved that students' knowledge of words' meaning and form were broaden when they knew the English-English translation and could giving a simple description of a thing.

In the context of vocabulary learning for EFL students in Indonesia, at the first glance, it seems that putting analogy in teaching-learning setting is overly sophisticated thing for the students at middle level. However, we cannot deny the fact that at every stage language acquisition, humans think in metaphors and analogies, and as human being, it is our nature to use comparison, even at the most basic level (Wormeli, 2009)[47]. Wormeli also suggests that as

teachers, we can adjust the level of difficulty of the activities and questions using analogy or metaphor depending on the grade level and development stages of the students, but we should not underestimate the students' ability to grasp complex comparisons just because their English vocabulary is limited. This ability to activate the analogical thinking of children in their early ages was confirmed by a research conducted by Gentner and Klibanoff (Gentner, 2003)[11] that showed the fact that children aged between 4 to 6 years old already had ability to use and understand analogy.

It is worth noting that despite L2 students have the same capabilities in using analogical thinking as L1 students, it should be some effort to put when we want to include analogy in vocabulary learning of L2 area. An integration activity is a necessary. To do so, this study tried modifying word analogy activity with other vocabulary activities that specifically helped students to have long-lasting vocabulary. In this study, word analogy was an extensive step where students were demanded to have a vocabulary store before reaching the word analogy activity. While in L1 area, the use of analogy instruction has widely spread as teaching strategy to aid in reading comprehension, vocabulary development, and connection of ideas across the curriculum (Greenwood, 1988[13]; Judy, Alexander, Kulikowich, & Wilson, 1988[18]; Silkebakken & Camp, 1993[39]; HuffBenkoski & Greenwood, 1995[16]). The researchers had developed a procedure for students starting from second graders.

Working with analogies is believed ideal for vocabulary development since it can lead students to detect shades of meaning and connection by clarifying, summarizing, and organizing information, and also requires them to be creative and flexible to attach experience to the words of others (Greenwood, 1988[13]; Silkebakken & Camp, 1993[39]; Wormeli, 2009[47]). Word analogy adopted in this study was specifically introduced by Smith (2002)[40] and Elliot as one of strategies in vocabulary learning.

Furthermore, as mention above, the modified word analogy in this study was about preceding some certain vocabulary activities before giving word analogy to the students. The vocabulary activities selected were that focusing to help students to activate their long-term memory. Those vocabulary activities were in accordance with what was suggested by Thornbury (2002)[42] who introduces some vocabulary activities such as decision making tasks, production tasks, and games that can help move words into long-term memory. It is quite crucial as memory has a key interface with vocabulary learning where the object of vocabulary learning is to transfer the lexical information from short-term memory to more permanent memory (Schmitt, 2000)[37]. In this study, the preceding vocabulary activities both provided students with word knowledge and guided them to recognize the four word analogy types. Thus, the modified word analogy was found highly useful as said by Thornbury (2002)[42] that when the integration activities have been created, it

will give a greater impact for students than just make them repeating the newly learned words.

6.2 The Way of Modified Word Analogy Helps Students to Improve their English Vocabulary Mastery

In any well-structured vocabulary program, there needs to be the proper mix of explicit teaching and activities from which incidental learning can occur (Schmitt, 2000)[37]. An explicit vocabulary teaching such as doing vocabulary exercise is suitable for the beginners while incidental approach such as vocabulary exposure by reading book is needed for the next level. In the context of English curriculum for basic level in Indonesia, it seems that incidental approach is more dominant when transactional and genre text-based are straightly introduced at first level. In one side, it is great for reaching communicative achievement of students. But in the other side, sometimes, at the first level, it is difficult for teacher to put an all-in-one activity in terms of time management in classroom setting.

The modified word analogy strategy embedded in the curriculum schedule was expected could cover both the need of curriculum fulfillment and vocabulary teaching all together. A vocabulary learning strategy is a necessary since it is not all about simple memorization, repetition, and taking notes on vocabulary. Some deeper vocabulary learning strategies, such as forming association and using the Keyword Method are believed can enhance the remembering power than rote memorization (Schmitt, 2000)[37]. Schmitt also suggests that a multiple vocabulary learning strategy should be used concurrently by considering an active management of strategy. Combining shallow activities and deeper activities is an important point besides considering learning culture, proficiency level of the students, and frequency of the target words for the successful of vocabulary teaching. In this study, Shallow activities that refer to vocabulary basic activities like matching task etc. combined with a deeper activity like word analogy task was used to answer a need of the multiple vocabulary learning strategy. If the basic activities aimed to help move words into long-term memory, the word analogy induced the analogous thinking. Thornbury (2002)[42] proposes some mechanical activities that can store vocabulary in permanent memory. The vocabulary activities include various tasks, they are; identifying, selecting, matching, sorting, ranking & sequencing, completion, and creation tasks, as well as games that especially encourage word recall through guessing and categorizing. The specific use of word analogy in teaching language is presented as the first step of five-step strategy by Silkebakken and Camp (1993)[39] to instruct students in analogous thinking that can be used by teachers; (1) analyze different kinds of relationships, (2) balance terms in providing analogy problems, (3) create original analogies, (4) discuss reading passages using self-generated analogous, (5) explain self-generated analogies.

Besides all the advantages of this strategy, there is something should be aware of when dealing with grouping similar words together. Cross-association could be a possible threat to the students (Schmitt, 2000)[37]. It happens when students learn word forms and learn the meanings, but confuse which goes with which. According to Schmitt, words from closely related semantic grouping, especially antonyms, tend to be cross-associated words because they have similarity in semantic features. The cross-association was also found in this study, specifically in antonym and synonym when the students got two words that were truly new for them. To avoid the cross-association, Nation (1990)[26] suggests that it is better to teach the most frequent or useful word of a pair first, and only after it is well established introducing its partner(s).

After all, this study shows that modified word analogy gives a positive impact towards the improvement of students' vocabulary mastery and a good chance for students to sharpen their analogical thinking. Therefore, the result of this study strengthens the previous studies which indicate that analogies are ideal for vocabulary development. Nevertheless, this study still has a lot of weakness and needs more exploration.

7   CONCLUSION

In conclusion, it is found that the modified word analogy is one of the representative vocabulary learning strategies that can be used to improve the students' vocabulary mastery. The result of statistical analysis indicates that modified word analogy gives a significant effect on the students' vocabulary mastery. The obtained eta squared value of paired sample t test for two kinds of test were 0.77 and 0.62. Each of the values indicated a large effect size which was greater than 0.13 according to Cohen's guideline. While from qualitative side, the result came from the observation notes of students' involvement and some of their writing products with some important notices to be considered. In writing product in terms of students' lexical choices, except antonym, the three other types of word analogy i.e. classification, performer & action, and synonym were appeared on their works. Regarding to the observation notes of the four different types of word analogy (i.e. classification, performer & action, synonym, and antonym) after some preceding vocabulary activities, students' participation and discussion generally showed the same upright level of excitement in all of the four types or word analogy. Meanwhile, the proportion of groups which was able to answer the exercises completely was fewer for the synonym and antonym than for classification and performer & action. The use of a full descriptive text and dealing with new cross-associated words (especially antonym) were two things that made students could not finish the exercises on time. At last, the proportion of students who was able to find and explain some words having relationship by using word analogy was very few in all of the four word analogy types due to time limitation. Thus, text choice, cross-association, and time management are three points noted as some issues in this study.

However, above all, the modified word analogy that combines both the initial step of introduction of new words and vocabulary reinforcement is ideal for vocabulary development in language teaching.

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