"The Influence of Word Search Puzzle on Students' Vocabulary Mastery at Seventh Grade of 10 Junior High School Serang (SMP Negeri 10 Kota Serang)"

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Abstract

The objective of this research was to find out the influence of using words search puzzle in students' vocabulary mastery at the seventh grade of SMP Negeri 10 Kota Serang. The quantitative method was used in collecting the data with quasi experimental design. The population of this research was the seventh-grade students in SMP Negeri 10 Kota Serang. The cluster random sampling technique was conducted to choose the sample in this research. The result was the sample of this research was the students of VII D as control class and VII A as an experimental class. In collecting the data, the researcher conducted pre-test and post-test. In analyzing the data, the researcher used a T-test. The result of the calculation showed the t-count is higher than the t-table ($12.87 \geqslant 2.02$) with the significant level of 0.05. Therefore, it can be concluded that there was an influence of using words search puzzle as a teaching technique on students' vocabulary mastery. Furthermore, the researcher would like to suggest the English teachers use words search puzzle in teaching vocabulary.

Keywords: The Influence, Words search puzzle, Students' Vocabulary Mastery

Introduction

Vocabulary is the collection of words that an individual knows and use to communicate. Hatch and Brown (1995:1) define vocabulary as a list of words for a particular language or a list or set of word that individual speaker of language might use. From the explanations above, it can be assumed that students are not only expected to recognize the words but also they have to know the meaning of the words and able to use the words for communicate.

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Moreover, learning vocabulary is an essential part in language teaching. Thornbury (2003:13) stated "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed". In addition, Nation (2001) describes the relationship between vocabulary knowledge and language use as complementary: knowledge of vocabulary enables language use and vice versa, language use leads to an increase in vocabulary knowledge. Without mastering vocabulary, students will find difficulties in the languages use for other competencies such as listening, speaking, reading and writing.

Ministry of Education and Culture (*Kemendikbud*) has published the Circular Letter No.15 of 2020 regarding guidelines for organizing *Pembelajaran Daring* or Learning from Home to prevent the spread of COVID-19. However, because of this pandemic situation the researcher could not do pre-observation in the classroom. As an alternative, the researcher conducted preliminary interview with the English subject teacher and students which choose to learn through Luring (*Luar Jaringan*) method on August 6th 2020. From the preliminary interview, the researcher found out that students have little interest in learning English. This condition caused by several factors such as some students do not have enough exposure of English, students have difficulty in remembering the words which lead to lack vocabularies, and students needed an interesting technique to learn vocabulary. Referring to the problems various techniques are needed to encourage students to learn English, and one of it is by using word search puzzle game.

Word search puzzle is one of games which can be used in vocabulary learning activity. Word search puzzle is a puzzle consists of hidden words which aimed for students to find the words hidden. Vossoughi and Zargar (2009:80) defined Word search puzzle as an instructional game consist of letters arranged in a grid and persuade students to find the listed words in any direction: horizontally, vertically, diagonally, forwards, and backwards. To be concluded, word search puzzle is an instructional puzzle game consists of words placed in any directions which persuade students to find the words hidden in the puzzle.

Nur Hidayat (2016) has conducted research related to using words search puzzle to improve students' vocabulary entitled, "Improving Students' Vocabulary Achievement through Word Game". The research findings show that there was improvement of students' vocabulary based on the score of the test. However, the previous researcher applied the word game as the large group activity and it leads the classroom situation became inconvenient. Whereas in this research, the words search puzzle game was applied as the individual task and it was given through e-learning method while in the previous research the material was given through direct teaching method.

Based on the background above, the researcher identified there were three problems that could be used as the subject of the research. First, students lack of vocabulary. Second, students have difficulties to memorize the vocabulary. Third, students need an interesting technique to learn vocabulary. Therefore, the researcher formulated the problem in this study as follows, "Is there any influence of using words search puzzle on students' vocabulary mastery at seventh grade of SMP Negeri 10 Serang?"

Literature Review
Concept of Vocabulary
Vocabulary can be described in various ways. There are some explanations from the experts. According to Linse et al., (2005:121) vocabulary is the collection of words that an individual knows Meanwhile Cameron (2001) defined vocabulary is about learning words, children are not only expected to know the word but also they have to know what the meaning of the word. In addition,

Hiebert & Kamil (2005) stated "vocabulary is the knowledge of meanings of the words". The statement tells us that vocabulary is knowledge to learn the meaning of words, which is why vocabulary is an important element to learn foreign language.

It is important to learn vocabulary for both English as a foreign language learner or English as second language learner. Vocabulary is vital to language and essential to the average language learner. (Coady & Huckin, 1997; Namaziandost, et. al., 2020). Other expert; Morra and Camba (2009) said, "It's widely accepted that vocabulary learning is one of the essential elements both of acquisition of one's native language and of learning a foreign language." Furthermore, Octaviani, Handayani, and Hamer (2019) believed that vocabulary is used to express ideas, feeling, or information to people clearly. Vocabulary may be the basic part in learning English, but vocabulary also the essential part to learn English. Without mastering vocabulary, students cannot convey the meaning of the words and it will be hard to communicate in written or oral form.

Definition of Vocabulary Mastery

Mastery is the term that functions to tell about something complete and at the controllable stage. According to Ellies (1991), mastery is comprehensive knowledge or use of a subject or instrument. This idea is supported by Porter (2001:953), "mastery is learning or understanding something completely and having no difficulty in using it". Based on those definitions stated by Ellies (1991) and Porter (2001) it can be concluded that mastery does not define perfection but mastery has to do with great skill, technique or knowledge that someone displays in a given area of expertise.

In summary, vocabulary mastery means the stage where students are able to understand the meaning of words and have the ability to use it in their daily life. Therefore, students should not only know about the words, but they also have to understand the meaning and the use of the words.

Words Search Puzzle

There are many fun and enjoyable techniques that can be applied in learning vocabulary activity and one of them is by using game. According to Hadfield (1998:6), game is an activity with rules, a goal, and an element of fun. Games may also support educational activity. Globus (2005:42) stated that "Games are often purposed to gain vital knowledge, experience, and skill which hard to obtain in real life".

In teaching vocabulary, teacher can use game as a fun technique for students to learn vocabulary. Vossoughi and Zargar stated that "the exciting nature of playing games can facilitate the vocabulary learning" (2009:84). Games could offer students an effective learning vocabulary activity without feeling pressured. A game has many benefits toward language learning because it offers students a fun-filled and relaxing learning atmosphere (Wulanjani:79)

Hadfield stated there are seven kinds of games which can be applied by teacher in teaching vocabulary and one of them is "search game". Furthermore, "word search puzzle game" which categorized as search game was used for teaching vocabulary in this research. In addition, Salen & Zimmerman (2004:80) defines puzzle as a special kind of instructional game in which there is only a single correct answer.

Based on the statements from Hadfield (1998:6) and Salen & Zimmerman (2004:80) the researcher concluded that word search puzzle is an instructional puzzle game consists of the letters of words placed in a grid. The objective of puzzle game is to find the hidden words inside the box. The words placed horizontally, vertically, or diagonally. Often, a list of the hidden words is provided as the clues.

Teaching Vocabulary by Using Word Search Puzzle

Word search puzzle is an effective technique for students to challenge themselves because students can explore new vocabulary by doing the word search puzzle without teacher help. Vossoughi and Zargar stated that through word search puzzle, learners are given opportunities to know and explore new vocabulary without direct teacher assistance (2009:84).

Even though direct assistance from the teacher is unnecessary, clear instructions are needed to implementing word search puzzle in the learning activity. There is a procedure to use word search game in teaching learning vocabulary according to Dunlap (2013:17). First, teacher has to prepare the word search puzzle in advance and either writes it on the board or downloads it, or creates it and then distributes it to the students. The teacher can also write a list of the words. Second, words will be hidden inside the letters, written horizontally and vertically (it can also be backwards and diagonally). Last, students have to find the words hidden. Students should mark the words by circle the words or draw a line on the word when they found them.

Research Methodology

This research used quantitative method with quasi experimental design. The population of this research is the seventh grade of SMP Negeri 10 Serang. There are 10 classes with total 361 students. Cluster random sampling technique was conducted to choose the sample in this research. Ary et al., (2010:167) defines cluster random sampling as randomly select naturally technique occurring groups from a population. Class A and D were randomly chosen as the research sample. Therefore, the researcher used class A as the experimental group and class D as the control group.

The instrument of this research was multiple choices test. There were three kinds of test such as try out, pre-test, and post-test. Try out was conducted to measure validity and reliability of the test. The pre-test and post-test were conducted to measure students' vocabulary mastery before and after the treatment. The validity was analyzed by construct validity and the reliability was estimated by using Kuder-Richardson 21 formula or K-R 21.

The statistical approach is used to analyse the result of the collecting data. The pre-test and post-test score were used as the data to answer the formulation of problem. Normality of test, Homogeneity Test, and Hypothesis Test are the components which analyzed.

The Hypotheses

- H_0 : there is no influence of using word search puzzle to improve students' vocabulary mastery.
- H_a : there is an influence of using word search puzzle to improve students' vocabulary mastery.

Research Findings and Discussion

Before collecting the data, try-out test was conducted to measure the validity and reliability of the instrument. There were 50 questions given to 30 students out of sample. The researcher used construct validity by Pearson's product moment formula and Kuder-Richardson 21 formula to measure the reliability of the instrument. From the validity and reliability test, there were 44 valid questions which were gained from 50 questions.

From the research, the students' score showed that the average score in pre-test of the experimental class was 42.5, whereas the average score in pre-test of control class was 48. Meanwhile, the average score in post-test of experimental class was 67.75 and for control class was 56. In other

words, the average gain score of experimental class which taught by using word search puzzle was higher than control class which taught the same material by using lecturing technique only.

In other words, the average gain score of experimental class which learned vocabularies through word search puzzle was higher than control class which learned vocabularies through lecturing technique only. Also, the students of experimental class were enthusiast and active in the learning process. This result confirmed what Vossoughi and Zargar stated "The exciting nature of playing games can facilitate the vocabulary learning" (2009:84). The students' worksheet of experimental class showed that the students' vocabulary was increased which confirmed another statement from Vossoughi and Zargar (2009:84) through word search puzzle, learners are given opportunities to know and explore new vocabulary without direct teacher assistance. To be concluded, the alternative hypothesis was accepted and it showed that there was significant influence of using word search puzzle to increasing students' vocabulary mastery.

Conclusion and Suggestion

As stated in the first chapter, the purpose of this research is to find the influence of using word search puzzle on students' vocabulary mastery of SMP Negeri 10 Kota Serang. Based on the result of the analysis of the research, it can be proved that the students' score of vocabulary mastery test after being taught by using word search puzzle is better than before being taught by using word search puzzle. It can be seen from the score of the t-count which is higher than the t-table (12.87 $\geq$ 2.02) which means that H0 is rejected and Ha is accepted. Therefore, it can be concluded that there is a significant influence of using word search puzzle on students' vocabulary mastery at seventh grade of SMP Negeri 10 Kota Serang.

Based on the result of the research, using word search puzzle as a technique in teaching vocabulary is appropriate and applicable. English teacher should be creative and innovative in applying the technique, method, and strategy for teaching and learning vocabulary activity. Therefore, the teacher can use word search puzzle as a proper technique for classroom activities because word search puzzle makes students naturally absorbs the meaning, spelling, and use of the words without pressure. Being aware that vocabulary mastery is the crucial part in language learning, students should have a lot of knowledge of words in order to learn the other skills such as reading, writing, speaking, and listening.

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