A Modified Mind Mapping Technique with Word Match Game to Increase Students' Interest of Vocabulary

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Abstract:
Vocabulary is the basis of all skills in English. Mastering vocabulary can contribute to the achievement of subjects in class. It helps students understand reading material, understand other speaking, provide feedback, listening and writing materials. In other words, students can communicate fluently. The students will have difficulty in learning English if they have limited vocabulary. The use of appropriate technique will help the teacher to increase students' interest in learning vocabulary. Mind mapping technique modified with word match game is a good technique to be applied in vocabulary learning. The objective of this research was to find out whether there was increase students' interest in English vocabulary learning using a modified mind mapping technique with word match game.The research methodology used type quantitative research and pre-experiment design one- group pre-test and post-test. The subject of this research consisted of 30 students. The researcher used a questionnaire to obtain the data.The data was analyzed by using paired samples T-test. The result showed that mean of post-test is higher than pre-test and two tail significance is .000 which is lower than α = .05 (p = .000 < α = .05) so there were significant differences of students' interest between pre-test and post-test. In conclusion, this technique can increase students' interest of vocabulary.
Key Word: *Vocabulary,MindMapping,Word MatchGame.*

I. Introduction

English is one of International languages which have been spread across the world. This language is very popular in many countries because they think that English help them to communicate with other countries. It is the most important thing in transferring ideas and it is also applied by individuals in the entire world. For dealing with international language, English has many effects in correlating between human beings' life and some kinds of ways. At least, English may be considered as the second language and taught in each level in formal school even in university. As the language learners, it would be criticized to emerge and produce the language well. There are four components of English skill. There are listening, speaking, reading, and writing.

Vocabulary are the key in language skill, when learners are learning a new language, they should have enough vocabulary (Thornbury, 2004). All skills contain vocabularies. So, to increase the four skills, we must have a lot of vocabulary. As Mukoroli (2011) defined, "vocabulary as the entire stock of words belonging to a branch of knowledge or known by an individual." Having good mastery of vocabulary, contributes significantly to the achievement of the subjects in the class. The mastery of vocabulary help learners understand reading materials, understand other speaking, given responses, listening and writing materials. In other words, students can communicate fluently. No one can speak English if they have limited vocabulary and without a proportional amount of vocabulary any one will get trouble in the process of learning English.

The importance of learning vocabulary encourages this research to find effective ways of mastering vocabulary in learning English. Many students think that to be able to speak English they must know the meaning and they have difficulty memorizing vocabulary. These facts make their interest in English even less. Teaching vocabulary is a challenge for teachers to help students in mastering vocabulary so that they are able to develop their English skills. As Singer et al (2003: 39) stated, "Teaching is helping learners to acquire new knowledge or skills. Teaching consists, mainly, of telling, showing, guiding the learner in performance tasks and then measuring the results." So, teachers need to know what things they can use to help their students develop vocabulary. Teaching English vocabulary requires a variety of learning methods that can help students be more attractive in receiving lessons in class. In other words, learning variations can prevent students from boredom and are able to create student interest in English vocabulary.

This study used Mind Mapping in teaching English to increase students' interest in vocabulary. According to Buzan in (Huda, 2014: 306), "mind mapping is an easy way to place information into the brain and extract information from the brain. Mind Mapping is a creative and effective way of writing that will map your mind in a simple way." Buzan also said that it was a creative, effective and simple note-taking method. Mind

mapping is very useful for students to memorize vocabulary. Therefore, this method is expected to stimulate student interest. Al-Jarf (2011) defines the concept of mind map as follows: A mind map is a graphic organizer in which the main categories radiate from a central idea and subcategories are represented as branches of a larger branch. It is a visual tool that can be used to generate ideas, take notes, organize thoughts, and develop concepts.

The researcher realizes that this research is not the first or the newest study on mind mapping. There are some researchers who had already conducted their studies on this issue, e.gAzura ((National University of Malaysia, 2016), Ahmad Ali Heidari and LotfollahKarimi (Islamic Azad University, Hamadan, Iran, 2015), and Aziza (Lampung University, Lampung 2019). Their studies differ based on the focus of their research. Azura (2016) focused on the use of mind mapping technique to increase the vocabulary list. Different from Ahmad Ali Heidari and LotfollahKarimi (2015) focused on the effect of mind mapping on vocabulary learning and its retention while Aziza (2019) focused on the modified video and mind mapping to improve students' writing achievement.

In this study, the writer modified the mind mapping with an easier concept using Word Match Game to increase students' interest of vocabulary. Word Match Game (Risya, 2019: 22) is one of the many instructional games that are suitable for someone to make or see the relationship between words, definitions, synonyms, and antonyms of a word. This game is an alternative to the practice of matching a word with its synonyms and antonyms and is a fun way to understand words. Basically, students already have English vocabulary that they have often heard, seen and learned before, even many English words have the same or opposite meaning. Meanwhile, mind mapping will make it easier to arrange the appropriate words so the words will be more organized. This will help students acquire new words more easily and improve their vocabulary performance.

Based on the background of the study above, the questions to be focused on is:

Is there any significance difference of students' interest in English vocabulary learning using a modified mind mapping technique with word match game?

II. Material and Methods

Vocabulary

Vocabulary is basic skills in learning and mastering English. According to TnanhHuyen&Thi Thu Nga (2003, in Rouhani&Purgharib 2013) vocabulary as a language element that links the four language skills including listening, speaking, reading, and writing in learning a foreign language. Hornby (1995) defined vocabulary in three senses that cover a) the total number of the words which make up a language; b) all the words known to a person or used in a particular book, subject, etc; and c) a list of words with their meaning. The importance of vocabulary was also noted by Richards and Renandya (2002) believing that vocabulary plays crucial part in one's foreign language learning and language proficiency that can affect how well learners speak, listen, read and write.

There some aspects of vocabulary that should be mastered by students as proposed by Ur (1996: 60-62). They are as follows:
1.   Pronunciation and Spelling; the students have to know what a word sounds like (its pronoun) and what it looks like (its spelling).
2.   Grammar; the grammatical rules should be understood by student when they learn a set of new words.
3.   Meaning; the meaning of words is primarily what is refers to in the real world, its denotation. A less obvious component of the meaning of an item it is connotation: the association, or positive or negative feeling it evokes, which may not be indicated in a dictionary definition. A more sub aspect of meaning that often needs to be taught is whether particular item is the appropriate one to use in a certain context or not.

Mind Mapping

According to Buzan (2009: 4), "mind mapping is an easy way to place information to brain and take information out from brain. Mind Mapping is creative and effective way to write and will map your mind by a simple way." Mind mapping works by taking information from several sources and then displaying information as keywords in a bright colorful manner. According to Al-Jarf (2011: 4), "a mind mapping is a graphic organizer in which the major categories radiate from a central idea and sub-categories are represented as branches of larger branches." Teachers can use it to enhance learning. It is helpful for visual learners as an illustrative tool that assists with managing thought, directing learning, and make connections. It enables students to better organize, prioritize, and integrate material presented in a course. However, other expert Jones et al (2012: 2) stated, "mind mapping helps students learn information by forcing them to organize it and add images and color to it. It allows students to create a visual image to enhance their learning." According to Buzan in (Huda, 2014), there are seven steps of mind map as follows:
1.   Making a central image in the center of the paper. Color and add something interesting;
2.   Drawing some basic ordering ideas, spread out from the central image;

3. Thinking of all something interesting as much as possible and funny for you and it can be connected with the central image to give you the inspiration;
4. Adding some branches to the basic ordering ideas using symbols, pictures, and colors as much as possible;
5. Thinking of the details which are interesting and it can encourage your curiousity. Add to your mind map;
6. Continuing it until you have adequate information for your mind map;
7. Creating a mind map. Several studies have been conducted about how using mapping technique in developing students' vocabulary mastery.

Word Match Game

According Risya Julia Rachmawati (2019:22) word-matching games are one of many instructional games that are suitable for someone to make or see the relationship between words, definitions, pictures, synonyms, and or antonyms of a word. This method is one of the methods of cooperative learning that makes students more active in the teaching and learning process. The Word Matching Game is one technique that will help teachers easier to teach vocabulary. This will help students get new words easier and improve their vocabulary performance. Matching game is a guessing game where is a one of many types of game, As Slattery and Willis (2001) suggest, this type will help children become familiar with new vocabulary in an enjoyable way (p. 49). Word- matching games can make the teachers easier to teach vocabulary while preparing vocabulary lessons for their class. The rule of this game is to match objects such as words, definitions, pictures, synonyms and or antonyms on the card (Risya:2019).

Teaching Vocabulary using Mind Mapping with Word Match Game

Teaching vocabulary using modified mind mapping with word match game become focus in this article. Based on the concepts above which are the basis for modifying the mind mapping with word match game, it is expected to increase students' interest in vocabulary. The application of this technique is done in groups using the arrangement of mind mapping as well as synonyms and antonyms in the word match game. This article will combine the two concepts.
Briefly, the following are the procedures of modified mind mapping technique with word match game:
1. The teacher divides the students into several small groups.
2. The teacher gives a word to each group.
3. The teacher instructs the students what they should do.
4. Students are asked to find synonyms and antonyms of the word then arrange them with the main word in the middle with synonyms and antonyms as branches of the word.
5. In one meeting the teacher can give 3-5 words to each group.
6. The teacher guides in the pronunciation of each word they present.

Procedure methodology
This type of the study is conducted with quantitative research. This is used to find out whether there is increase in students' interest of vocabulary who are taught with the modified mind mapping method. Furthermore, the researcher used pre-experiment design that is one-group pre-test and post-test in conducting the research.

T1 X T2

Participants
The population was the students of SMK IT BAITUN NUR. The participant of this study was X computer network engineering, 30 of students.

Instruments
This study used questionnaire to obtain the data. It is done to find out whether the modified mind mapping method can increase students' interest in vocabulary. So, this questionnaire used a Likert scale that is given to students before and after treatment to find the improvement.

Data Analysis
For this study, a questionnaire was conducted before and after the treatment of 30 students. The questionnaire includes 5 statements and is closed about the use of mind mapping technique with word match game in vocabulary learning and students are asked to respond whether they are: (1) strongly agree (2) Agree (3) Somewhat (4) Disagree (5) Strongly disagree with the statement. The post-test questionnaire was analyzed based on the percentage of each answer. To calculate the questionnaire data into percentages, the researcher used a formula where the number of frequencies was multiplied by 100% then divided by the total number of

respondents (30 students). The data obtained from the pre-test and post-test were analyzed through paired samples T-test of SPSS program.

Construct validity
Construct validity refers to how well a measure actually measures the construct it intends to measure and is the ultimate goal when developing an assessment instrument (Britt Karin StoenUtvaer and GorillHaugan, 2016). It was examined whether the test is actually in line with the theory of vocabulary aspects. It means that the test was measured with the indicators of vocabulary aspects. There some aspects of vocabulary that should be mastered by students as proposed by Ur (1996: 60-62). They are pronunciation and spelling, grammar, and meaning

III. Result

Questionnaire Number 1
English is important especially in vocabulary.

Classification	Frequency	Percentage
StronglyAgreeAgreeUndecidedDisagree StronglyDisagree	7 23	23.3% 76.7%
Total	30	100%

From the data above, it can be concluded that the students mostly strongly agree with the statement that English is important especially in vocabulary. There are 7 (23.3%) students confirmed strongly agree, and the rest 23 students (76.7%) confirmed their agreement. None of the student chooses undecided, disagree, and strongly disagree.

Questionnaire Number 2
Having difficulty when speaking English especially pronunciation and spelling.

Classification	Frequency	Percentage
StronglyAgreeAgreeUndecidedDisagree StronglyDisagree	2 23 5	6.7% 76.7% 16.6%
Total	30	100%

From the data above, it can be concluded that the students mostly disagree and strongly disagree 23 (76.7%) and 5 (16.6%) with the statement, although there are 2 (6.7%) students who undecided with the statement. It means that the application of mind mapping technique with word match game helped students overcome difficulties in their English pronunciation and spelling.

Questionnaire Number 3
Vocabulary enriches my grammatical knowledge.

Classification	Frequency	Percentage
StronglyAgreeAgreeUndecided Disagree	3 22 5	10% 73.3% 16.7%
StronglyDisagree		
Total	30	100%

From the total respondents, 3 (10%) students answer strongly agree for the statement number 3 while there are 22 (73.3%) students who answer agree to this statements. 5 (16.7%) students undecided with the statement. It can be concluded that most of students agree about this statement.

Questionnaire Number 4
Having difficulty to understand meaning of vocabulary.

Classification	Frequency	Percentage
StronglyAgreeAgreeUndecidedDisagree StronglyDisagree	3 20 7	10% 66.7% 23.3%
Total	30	100%

From the data above, it can be concluded that the students mostly disagree and strongly disagree 20 (66.7%) and 7 (23.3%) with the statement, although there are 3 (10%) students who undecided with the statement. It means that the application of mind mapping technique with word match game helped students to understand meaning of vocabulary.

Questionnaire Number 5
Vocabulary is an interesting learning.

Classification	Frequency	Percentage
StronglyAgreeAgreeUndecidedDisagree StronglyDisagree	23 7	76.7% 23.3%
Total	30	100%

From the total respondents, there were 23 (76.7%) students who answered strongly agree for the question number 5 and there are7 (23.3%) students who answered agree to this statement. None of the student chooses undecided, disagree, and strongly disagree. From the data above it can be concluded that the students interesting to learn vocabulary using mind mapping technique with word match game.

Pre-test and Post-test the Questionnaire Result
Table 1.
Paired Samples Statistics

		Mean	N	Std.Deviation	Std.ErrorMean
Pair1	meanpre test	7.55	30	.991	.181
	meanpost test	12.31	30	.892	.163

Table 1 shows that mean of pre-test is 7.55 and post-test is 12.31. The data have 30 samples with std. deviation for pre-test is .991. While, std. deviation for post-test is .892. Thus, mean of post- test is higher than pre-test.

Table 2.
Paired Samples Correlations

	N	Correlation	Sig.
Pair1 mean pre test& mean posttest	30	-.170	.369

The next table about paired samples correlations. Based on 30 sample above, it can be seen that pre-test and post-test have correlation's score -170. Furthermore, to know the significant different between pre-test and post-test can be seen in table of paired samples test.

Table 3.
Paired Samples Test

PairedDifferences								
				95% Confidence IntervaloftheDifference				
	Mean	Std.Deviation	Std.ErrorMean	Lower	Upper	t	df	Sig. (2-tailed)

Pair1	mean pre test - meanpost test	-4.760	1.442	.263	-5.298	-4.222	-18.085	29	.000

The researcher needs table 3 to strength the results of her research. The table above show that two tail significance is .000 which is lower than α = .05 (p = .000 < α = .05). Based on the data above can be concluded that post-test can significantly increase of pre-test. Thus, H0 is rejected.

IV. Discussion

The objective of this research was to find out a modified mind mapping method with word match game able to increase students' interest in English vocabulary. There was research question in this article. It was formulated to know whether there was increase students' interest in English vocabulary learning using a modified mind mapping technique with word match game. Based on the result of the data above, it was obtained from paired sample T-test analysis. The percentage questionnaire to know aspects of vocabulary that should be mastered by students after doing treatment using a mind mapping technique with word match game, whether it is effective in mastering vocabulary aspects.

Based on the calculation of the percentage of the questionnaire, the results showed that the first question "English is important especially in vocabulary", there are 23.3% students confirmed strongly agree, and 76.7% confirmed their agreement. It means that students agree that vocabulary is important in learning English, it is proven that none of the student chooses undecided, disagree, and strongly disagree. The second question "Having difficulty when speaking English especially pronunciation and spelling", there are 76.7% students confirmed disagree and 16.6% confirmed strongly disagree with the statement, although there are 6.7% students who undecided with the statement. It means that the application of mind mapping technique with word match game helped students overcome difficulties in their English pronunciation and spelling. The third question "Vocabulary enriches my grammatical knowledge", the students agree with this statement. It can be seen 10% students answer strongly agree for the statement while there are 73.3% students answer agree. The fourth question "Having difficulty to understand meaning of vocabulary", there are 66.7% students confirmed disagree and strongly disagree 23.3% with the statement, although there are 10% students who undecided with the statement. It means that the application of mind mapping technique with word match game helped students to understand meaning of vocabulary. The last question "Vocabulary is an interesting learning", there are 76.7% students who answered strongly agree and 23.3% students who answered agree to this statement. None of the student chooses undecided, disagree, and strongly disagree. It can be concluded that the students interesting to learn vocabulary using mind mapping technique with word match game.

A modified mind mapping technique with word match game can help to increase student's interest of learning vocabulary. This is also reinforced by the results of the mean of post- test is higher than pre-test. Moreover, the analysis of paired samples T-test shows two tail significance is .000 which is lower than α = .05 (p = .000 < α = .05). It means that it means that there is a significant difference in the pre-test and post-test data. So, it can be concluded that through learning using this technique can increase students' interest in learning vocabulary. According Samhudi (2016) mind mapping technique is effective to improve students' ability in vocabulary mastery. Moreover, mind mapping has been proven to have an effective influence in improving students' vocabulary mastery. Besides that, games can lower anxiety, thus making the acquisition of input more likely (Richard-Amato 1988:147). They are highly motivating and entertaining, and they can give shy students more opportunity to express their opinions and feelings (Hansen 1994:118). Muslimin (2017) concludes as matching games that use the vocabulary increases, the improvement is not only in average value, but also in the learning process in the classroom.

Interest in something is one of the important things that can stimulate people to get the best out of what they do or like. According to Harackiewicz and Hulleman (2010: 42) explains interest is when someone is involved or engrossed in something they care about and they have positive feelings towards it. While Henley (2010: 19) says that "when students are involved in monotonous and boring lessons it creates boredom, which in turn causes students to seek distraction". Feelings of interest can help students to understand more easily and even fun to learn the topic.

V. Conclusion

Integrating mind mapping technique and word match game can help to increase students' interest of vocabulary. This technique helps students to minimize the problems that arise in learning English, especially vocabulary. The main problem is the students' lack of interest in English which triggers the researcher to raise the issue in this article and hope of solving the problem.

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