

## **Improving Students' Vocabulary and Activeness Using Mind Mapping: A Classroom Action Research of 1<sup>st</sup> Semester Students of Law Faculty Semarang University**

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**Abstract.** The objective of this research is to improve students' vocabulary and activity during teaching-learning process using mind mapping as a teaching method. This is a classroom action research conducted at Semarang University and the sample is taken from the first semester students of law faculty. This classroom action research applies two cycles. Each cycle includes planning, acting, observing and reflecting. The result showed that through mind mapping students can master English vocabulary easily especially English vocabulary for law, their test score improved, and they became active enough in participating in class such as asking and answering question, delivering opinion, and completing task.

**Keywords:** mind mapping, active learning, vocabulary, CAR

### **1. Introduction**

Many researches have been conducted to investigate methods or models to teach English vocabulary. Many of them try to find easy, understandable, and simple method so that students can learn English vocabulary easily. Many of them also encourage students to participate actively in a classroom so that the method or model will remain in the students' memory. Many efforts using various technique and method to teach vocabulary were previously done by other researchers. Hartono (2003) in his research found that using audiovisual media is effective to improve students' vocabulary ability. Moreover, Nikmah (2014) who teach vocabulary using *realia* and word card said that the students who taught by *realia* have big influence than those who taught using word card because *realia* made the students more interest and easy to understand vocabulary mastery process. Other research from Septiyantono (2013) stated

that the students got better understanding when they used vocabulary trees as a technique to enhance their vocabulary mastery. He said that it is effective and applicable learning aid to develop students' vocabulary. From those previous researches we can conclude that teaching method which gives a good impression to students will give a good impact. It is proven helping students improving the vocabulary mastery.

Why it is essential to learn vocabulary because it has great influence in foreign language acquisition. As Thornbury suggests without grammar very little can be conveyed, without vocabulary nothing can be conveyed (2002:13). When we want to convey information or our opinion, we use language as a means of communication. It consists of word as the smallest unit which constructs sentences so that language can be communicated properly and can be understood by other people. Then, learning vocabulary can be

said as a stepping stone to learn more about language.

Learning vocabulary is not as easy as we may think because it is not merely studying word and its meaning beyond that we also need to pay attention to its context. When English is learned in higher education such as in a university, students will learn English which relates to their major and it usually known as English for Specific Purposes (ESP). Students of Law Faculty for example will learn English for Law. It means that the vocabulary, the reading material, et cetera relate to Law. Then, the lecture along with the students will deal with greater challenge in teaching-learning process. Both of them have their own issues. The lecture is demanded to be creative so that her students can experience the learning process effortless. On the other hand, the students have to deal with strategy to remember and comprehend complex words so that they can produce language. To minimize the difficulties experienced by both the lecture and the students in teaching or studying vocabulary as well as to improve the students' participation in the classroom, mind mapping is used in this research as the teaching method. Mind mapping is a useful and creative technique in making a note. The note is simplified so that it is more efficient and effective to be learned and memorized (Buzan, 2009:6). Actually, the benefit of using this method is it gives a summary of wider subject, English vocabulary for example. This method will also trigger students' creativity when they create their own map. For these reasons, this method is suitable for the first semester students of Law Faculty Semarang University who attend afternoon class program. The characteristics of the students in this program are passive; the class activity is lack, the lecture is the source of information. They do not accustom with discussion. So, they need to be

encouraged well to improve their vocabulary mastery as well as their participation during teaching-learning process, and mind mapping hopefully can solve the problems in teaching English vocabulary related to Law.

### **Mind Mapping**

As its name suggests, mind map helps students to create a map of their mind. It connects interrelated concepts which meet an understanding at the end. According to Buzan (2008:9) mind map is a fascinating expedition map for memory or mind by giving us easiness to organize all facts. This is a creative technique to make a note by drawing lines or pictures and colors in order to simplify the complicated information. The process in making mind map is simple; the materials needed are paper, crayon or marker, brain and imagination. The steps are as follows:

1. begin from the center, because it triggers our brain to think to all direction.
2. use picture or photo for the central idea.
3. use crayon or marker, because it will enhance our creativity and energy.
4. connect the branches to the grand idea
5. draw a curved lines, because a straight lines is monotonous.
6. use a key word to each line
7. use picture, because pictures speak thousand words (Buzan, 2009:14-16).

According to Saleh (2009:112-119) in learning process mind map is useful to:

1. sorting the important information
2. recalling a memory; a picture or colorful visual image helps us to increase our memory
3. taking a note, mind map helps us to make an efficient note by

selecting the important information.

4. understanding the subject matter in detail.
5. improving creativity, through mind mapping students feel free to express their imagination using picture and color in studying vocabulary.
6. maintaining the learning interest
7. controlling our mind to be focused on what we learn
8. being creative, the more the students are expressive, the more the students become creative

### **Vocabulary**

When someone has desire to master a foreign language, it is necessary for him to learn the vocabularies as much as possible because vocabulary or word as the smallest unit of language plays an important role in language acquisition. Mastering the vocabulary can be said as a stepping stone or first step to acquire language. Nunan (1991:103) has stated that the acquisition of an adequate vocabulary is essential for successful second language learners because without an extensive vocabulary, they will unable to use the structures and functions they may have learned for comprehensible communication.

Furthermore, Richard and Renandya (2002:255) emphasize that vocabulary is a core component of language proficiency and provides much of the basis for how well students speak, listen, read, and write. The more we know vocabulary, the more proficiency we master. We can speak more fluently, and express our thought easier when we have extensive vocabulary. We can listen information and understand it clearly when we understand the vocabulary. We can write a good composition and avoid using the same word when we are rich of vocabulary. We can comprehend many

literatures and works when we understand the words used in the composition.

### **Learning Activeness**

According to Norfolk and Nicolich in Saleh (2009:37) learning will always cause a transformation in someone's life. The transformation whether it is good or not will give impact to someone's experience. A good learning is obtaining knowledge through experience, through interaction among people and environment. Moreover, Hamalik (2011:28) said that learning is a process of change of one's behavior because of his interaction with his environment. The behavior can be explained as knowledge, understanding, habit, skill, appreciation, emotional, social relationship, physical, ethic, and manner. In short, learning is a change of mind and behavior of someone as a result of his interaction with his surrounding environment.

Then, we cannot deny that when we learn something, we must be active physically and spiritually. It includes the activeness of our senses, mind, memory, and emotion. First, active senses mean that when we learn something we have to be sensitive in using our sense of vision, sense of hearing, and sense of touch. Second, mind activeness means that our mind needs to be sharpened in order to be active in solving problem, taking into consideration, delivering an opinion, and taking a decision. Third, memory: learning needs activeness to safe the memory and to recall it when it is needed, then to restate the information. Fourth, emotion is needed because when we learn something we should attempt to love what we learn (Sagala, 2004:124-134). Based on Sudjana (2004:61) students' activeness in teaching and learning process can be seen in the following activity:

1. doing their tasks
2. solving problem
3. asking to other students or to the teacher once he/she does not understand the subject matter
4. searching all information needed to solve the problem
5. training themselves to solve the problem
6. assessing their abilities and their achievements

### **English for Specific Purposes (ESP)**

English in university is using ESP because its material and syllabus are adjusted to the students' need based on their major. It is different from General English that is taught in junior or senior high school. The purpose of ESP is to teach the students to master English specifically related to their study. Students who study Laws will learn about English for Law, students who study Engineering will learn about English for Engineering. It means that the content of the English teaching and learning is about the subject matter studied by the students, from the reading material to the vocabulary are adjusted to the specific field.

According to Mc Donough (1984: 3) ESP courses are those where the syllabus and materials are determined in all essentials by prior analysis of the communication needs of the learners. From this statement the syllabus and materials in ESP are designed based on the students' need, so from this feature ESP are different from the General English. In ESP, English is not only a theory to be learned generally, but English is learned as to prepare the students to be more ready applying English in working life.

## **2. Method**

This research was a classroom action research (CAR) which applied two cycles. Each cycle consisted of planning, action, observing, and reflecting. According to Arikunto (2013:129) the main characteristic of classroom action research is the collaboration between the researcher and the research target. So, this research was the collaboration between the English lecture and her first semester students of Law Faculty of Semarang University in order to improve the students' vocabulary and their activity in class during the teaching and learning process. The sample chosen is class B which consists of 32 students.

The data were gathered through observation and test. The observation aimed to observe the actual condition of the class. The researcher observed the class activity during discussion, students' creativity in making mind mapping. Rubric was prepared to assess students' activity. There were two tests distributed to the students, pretest and post test. Pretest was given before the treatment was applied and post-test was done after the treatment was implemented. The test aimed to assess the students' vocabulary mastery, how well they comprehend the vocabulary.

The researcher also determined indicators to measure whether or not the mind mapping succeeded to improve the students' activity in class, the indicators were:

1. Each student got B score which ranged from 70-79.
2. The class activity should be categorized to quite active based on the following scoring scale:
  - 0-20% Inactive
  - 61-80% Active
  - 21-40% Less active
  - 81-100% Very active
  - 41-60% Quite active

### 3. Findings and Discussion

#### Pre cycle condition

Before the mind mapping was implemented, the class condition could be described as a conventional class; it was a teacher-centered class which lacked of students' participation during the teaching-learning process. So, the students depended on teacher's information. When the class began, the students would be busy listening and taking note at the same time and they had no initiative to initiate a discussion. Furthermore, the lack of students' participation is influenced by several factors, first, the subject of this research were students who took an afternoon class program. Most of them are employees who work eight hours a day. So, when they came to the class, they looked exhausted and too tired to study. Second, when the students were too tired to study, the material could not be mastered maximally as a result their score was not satisfying, and then the target of study could not be reached. Based on these two problems the researcher applies mind mapping to give different learning experience in order to improve students' participation and students' score. The preliminary research found that students who passed the target of study were only 15,63%.

#### Cycle 1

In cycle 1 the researcher prepared the material, the vocabulary that must be mastered by all students, this vocabulary related with Laws topic since the students come from Law Faculty. The researcher then made a simulation in making mind map so that when she implemented mind map, the activity would be carried well and smoothly. All the materials to make mind map were prepared such as paper, color marker or crayon, ruler, sticky note. She also divided the class into several group because there would be a

discussion session during the activity and the improvement of class activity was the thing which was being analyzed. The researcher along with group of assistant also prepared a name tag for each student so that she could assess students' activity and got a valid data. The next step was explaining the mind mapping model to the class, begin from giving example of mind map, describing how to make the mind map, starting to divide the class into several groups and encouraging the students to do a team work. After implementing mind mapping the result of cycle 1 could be seen in the following table:

**Table 1** Students' Score in Cycle 1

The lowest score	52
The highest score	84
Mean score	70,1
Students who passed the target of study	19(59,38 %)
Students who did not pass the target of study	13(40,63%)

According to the treatment conducted in cycle 1, it could be seen that the student who passed the target of study showed a significant improvement, from 15,63% to 59,38%. It means that many students attained score ranged from 70-79 (B), even there were students who got score 84 (A) as the highest score in the cycle 1. In short, it can be said that through mind mapping students can comprehend the vocabularies. Nonetheless, the number of students who did not pass the target of study is quite a lot. So, even though in cycle 1 the treatment of mind mapping is quite successful to improve the students' vocabulary mastery, the number of students who did not pass the target of study still needed to be declined. Furthermore, the observation conducted to assess the students' activity could be seen in the table below:

**Table 2** Indicators of Students' Activity in Cycle 1

No.	Indicators	Mean
1	Listen to the explanation	1,9
2	Ask question	2,4
3	Discuss and do a team work	1,8
4	Deliver opinion	2,1
5.	Respond to the tasks	2,5
Total		10,7
Percentage		33,43%
Category		Less active

There were five indicators being assessed, and the table showed that the students' activity was categorized less active. According to the observation there are two reasons why the class is categorized as less active. First, the students were indeed excited and enthusiastic in retrieving the new learning model to study vocabularies. They were paying attention when the lecture explained how the mind mapping worked to help students comprehending the vocabularies, but they were inactive in responding the lecture's question. As a result it was hard to assess whether the students were having fully understanding about the material or not, or whether they understood the lecture's explanation or not. When the lecture asked a question, most of the students remained silent. Second, on the discussion session some of the students look enjoying the session and they became the center of the show. They could guide their friend to get involve to the discussion, but sometime they dominated the discussion and forgot to give their friend a chance to aspire their opinion. It was also seen that few of students like the conventional way rather than the mind mapping which demanded the students to take part in the discussion. They said that they were passive and

preferred to study calmly, but they were keen on participated in a team work.

According to the finding in cycle 1, the researcher reflected that motivation is substantial element to encourage the students participated actively in teaching-learning process. Once they were motivated, the discussion would be more alive and the learning experience became more memorable.

### Cycle 2

In cycle two the preparation is quite similar to the previous cycle. The material had been prepared first, and then the properties such as color marker, paper, sticky note, and ruler. She defined the students' group the same as the group in cycle one, but she decided to give the students an opportunity to choose their own group and the group should have the group's chief because it was good to have a person who took responsibility in encouraging other students to be active. The mind mapping was explained again and gave more examples and asked more questions to the students so that they truly understood what mind mapping was. The researcher also told the students that the best group would get a reward.

The students' score in cycle two were as follow:

**Table 3** Students' Score in Cycle 2

The lowest score	60
The highest score	96
Mean score	78,4
Students who passed the target of study	28 (87,50 %)
Students who did not pass the target of study	4 (12,50%)

From the table, the result showed a significant improvement. The most significant point was seen from 28 students who passed the target of study, it means that most of the students gained a good score in the test, only four students who did not pass the target of study. The

highest score was 96 and the mean score improved from 70,1 to 78,4. Actually the mean score in this research had already been reached in cycle one but the number of students who failed reaching the target of study was still a lot. So, the cycle 2 aimed to decrease the number of failed student and this cycle succeeded accomplishing its purpose. The treatment contributing to the success of cycle two were: first, giving the students a chance to define their own group. Psychologically, close relationship created safe and comfortable environment to deliver an opinion that enhance the discussion activity. In the previous cycle the problem obstructed the students in the discussion was shyness. Some of students felt shy whether their opinion was correct or incorrect. So, the lecture then motivated the students that express an opinion was a good thing and it was very common in our everyday life, there was no correct or incorrect opinion in such a discussion forum. Everyone has a right to deliver their opinion. Second, giving a reward became a reinforcement to increase the students' participation. At the end students were interesting to get the reward. Third, the more the lecture gave question the better the students understand the material. Through question-answer session students had deepen understanding about the material as well as the mind mapping model. They had better understanding about how to classify the important information which helped them to remember the vocabularies.

The four students who failed reaching the target of study felt that it was always hard for them to study English because they basically does not like English. Their mind set define that English is a difficult subject to be learned. Furthermore, they like the conventional way in studying. They like remembering words rather than exploring

or trying a new learning model, whereas mind mapping demanded them to be participated actively during the teaching-learning process.

On the other hand, the students' activity in the class was seen through the following table:

**Table 4** Indicators of Students' Activity in Cycle 2

No.	Indicators	Mean
1	Listen to the explanation	3,2
2	Ask question	3,2
3	Discuss and do a team work	3,4
4	Deliver opinion	3,3
5.	Respond to the tasks	3,6
Total		16,70
Percentage		52,50%
Category		Quite active

The students' activity showed an improvement as well. In cycle 2 the criteria for the students' activity was quite active. The mean score of all indicators increased, it means that the students' participation increased. From the observation, the researcher noticed that most of students paid attention to the lecture's explanation, while listening the explanation; the students were taking note and asking or answering the question both from the lecture and from their other friends, so the discussion were alive. They discussed everything related to the topic, their team work also enhanced. They could complete the task very well and on time. The students who were previously passive in the discussion were interested in joining it because the situation was challenging. They saw other friends delivering their opinion bravely and were not afraid making a

mistake since the lecture provide them with correction. In short, many students showed their confidence.

As a reflection, based on the observation the students' score and their activity during the teaching-learning increased, but the time management should be considered because once the discussion began, the time run very fast and when the discussion needed to be cut because of the run-out time the lecture could not summarize the whole activity. There might be questions wanted to be asked but it could not be answered because the time was up. The lecture needed to keep students' motivated. Even though the students could do their own discussion or they could make a sophisticated mind mapping, their motivation had to be recharged over and over so that the objective of the research could be established.

#### 4. Conclusion

The researcher draws three conclusions based on the finding. First, the mind mapping model can improve both the students' grade and activity during the teaching-learning process. The students learn the vocabulary easily. Second, the indicators have passed successfully. Most students fulfill the target by achieving B or the grade ranged from 70 to 79, even some students achieve score higher than 79. Third, the teaching and learning process are alive. Many students admit that they enjoy making their own mind map in order to simplify their note. They enjoy the discussion among other students to sort and decide the important information. Through this model the students' creativity also improves.

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