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The Use of Mind Mapping on Economic Learning at SMK Negeri 1 Malang

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Abstract

The purpose of this research is to find out how mind mapping learning method can improve learning activeness in class. This research was conducted in SMK Negeri 1 Malang on Business Economics subjects material scarcity and sub-theme of requirement. The sample in this research is students of class X AP 1 as many as 40 students. In the sample, the selection is not based on tribe, religion, race, and learning outcomes. In implementing the teaching, teachers apply 3 stages in accordance with the lesson plan that is the beginning, core, and closing activities. The application of mind mapping learning method is applied to the core stages of learning. The result of this research is student activeness in learning using mind mapping method looks increasing. Students are active and no students are found that are not active in learning.

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INTRODUCTION

The purpose of each teacher's learning is to prepare his students for developing knowledge and understanding of the material. Teachers as facilitators in the classroom besides assigned to deliver learning materials are also tasked to create a pleasant classroom atmosphere. Economic learning materials are very demanding for students to understand based on their living environment. Economic learning in students will be more easily understood by using learning methods in accordance with the material.

Various teaching methods are applied to make it easier to understand the material being taught. Teachers play an important role in the success of learning in the classroom. Teachers in charge of measuring whether students have mastered the science learned by the students under the guidance of teachers in accordance with the objectives formulated. (Istiqomah, 2011). The methods that are often applied in economic learning more often use a contextual approach. Various methods of learning are currently being developed to facilitate the delivery of economic material in high school. According to Simon Cassidy (2004: 420) a concept that has provided insight into learning and academic learning style.

In implementing the teacher's learning in delivering the material usually, has some constraints. These constraints can come from internal and external factors. Internal factors are derived from students self-such as learning obstacles. While external factors can come from the environment. Some of these constraints can lead to learning outcomes not in accordance with the Minimum Competency Standards (SKM). Student reflection of how engagement with key competencies might influence their future social studies teaching and learning (Hunter, 2010).

A strategy is a learning activity that must be done by teachers and students so that the learning objectives can be achieved effectively and efficiently. Efforts to implement a learning plan that has been prepared in real activities for the objectives that have been prepared can be achieved optimally, then needed a method used to realize the strategy that has been applied. In other words, teachers should apply appropriate learning models to the conditions of students, schools, and materials to be taught. With the selection of the right learning model then the purpose of learning will be more focused.

The approach can be interpreted as a starting point or point of view of the learning process. While the models of learning itself are usually structured based on various principles or theory of knowledge. Experts arrange learning models based on principles of learning, psychological theories, sociological, systems analysis, or other supporting theories.

Learning model can be used as a pattern of choice, meaning that teachers may choose appropriate learning model and efficient to achieve the purpose of education. Thus, each teacher is free to choose any learning model that can support positive learning activities in the classroom. The selection of learning models should also be tailored to what materials will be taught to be more efficient.

Before determining the learning model to be used in the learning activities, there are some things that the teacher should consider in choosing. According to Rusman (2012), the basics of teacher consideration in choosing the learning model are as follows:

- a. Consideration of the objectives to be achieved. The questions that can be asked are:
- 1) Does the purpose of learning to be achieved with respect to academic competence, personality, social and vocational competencies or formerly term the cognitive, affective, and psychomotor domains?
 - 2) What is the complexity of the learning objectives to be achieved?
 - 3) Does achieving that goal require academic skills?

- b. Considerations relating to learning materials or materials:

- 1) Are the subject matter in the form of certain facts, concepts, laws or theories?
- 2) Whether to study the learning materials requires a prerequisite or not?

In addition, Rusman (2012) mentions, the characteristics of the learning model as follows.

- a) Based on educational theory and learning theory from certain experts. For example, the group's research model was prepared by H. Thelen and based on John Dewey's theory. This model is designed to train participants in groups democratically.
- b) Have a specific mission or educational purpose, such as an inductive thinking model, designed to develop an inductive thinking process.
- c) Can be spelled out guidelines for improvement of teaching and learning activities in the classroom, for example, the Sysmetic model is designed to improve creativity in the lesson of writing.
- d) It has parts of the model called: (1) sequence of learning steps (syntax); (2) the existence of reaction principles; (3) social system; and (4) support systems, these four sections are practical guidelines when the teacher will implement a learning model.
- e) It has an impact as a result of the applied learning model. These impacts include; (1) Impact of learning, ie learning outcomes that can be measured; (2) Impact accompanist, which is the result of long-term learning.
- f) Make a teaching preparation (instructional design) with the guidance of the chosen learning model.

Therefore, the teacher does a treatment to overcome the problem. Treatment by teachers is reflected in classroom action research. Classroom action research has several stages including finding problems, giving treatment and evaluation. Evaluation can be done either by revision or not depending on the outcome of the class action research objectives. Positive teacher attitudes about teaching economics were also found to play a significant role in the achievement of higher test scores (Foeller, 1988).

In conducting classroom action research the teacher uses the treatment by applying the method of learning in accordance with the material being taught. It should be noted that the selection of learning methods is very important to be adapted to the material. If not appropriate then will cause the goal of learning is not achieved. In economic learning in high school will be easier with the contextual approach and cooperative method. The sort of teaching we propose for our students as teachers require that we encourage active learning and that we become knowledgeable about the ways in which our students hear, understand, interpret and integrate ideas (Harmer, 2001).

Economic materials will basically always flourish and it is important for teachers to provide a contextual view of each lesson learned. The goal is to facilitate students in capturing the material as it is presented in a method that presents the real world or in accordance with the daily life of the students.

One of the materials contained in economic subjects is the material scarcity with sub-chapter needs. We have come to know together that every human being has needs according to the criteria of types of needs. Students can map knowledge about the types of needs according to what they experience in their environment. The teacher's job as a facilitator is to provide an example that is appropriate to the reality of the student's life in his neighborhood.

The mind mapping learning method is a method of learning by mapping the concepts as well as the points of thought into the game of color and creations to facilitate memory and learning motivation. The purpose of applying mind mapping is to improve students' activity during the learning process on scarcity material with subchapters of need in vocational high school (SMK) 1 Malang.

Mind mapping is the brain's overall thinking alternative to linear thinking. Mind mapping can reach in all directions and capture thoughts from different angles (Buzan, 2010: 1). According to McGriff (2007, p. 9) "mind maps are an excellent way to help learners organize knowledge, to empower themselves to better comprehend the key concepts, and principles in lectures, readings, or other instructional materials". Mind mapping is a creative, effective way of mapping and mapping thoughts to ease information into the brain and retrieve information outside of the brain.

Buzan (2010: 5) states that mind mapping will: (a) provide a comprehensive view of the subject or area; (b) allow students to plan routes or make choices and know where students are going and where students are; (c) gathering large amounts of data in one place; (c) encourage problem-solving by letting students see new creative breakthroughs; (d) fun to see, read, and digest. In addition, according to Buzan (2010: 6) the advantages of mind mapping are: (a) activate the whole brain; (b) takes the mind out of mental tangles; (c) allows students to focus more on the subject; (d) helps show the relationship between separate pieces of information; (e) provides a clear picture of the whole and the details; (f) allows students to group concepts, and help students compare them; (g) requires students to focus on subjects that help divert information about it from short-term memory to long-term memory.

This information includes a set of mind mapping "laws" developed by Buzan (1989) which include:

- a. Start with a colored image in the center.
- b. Use images throughout your mind map.
- c. Words should be printed.
- d. All printed words should be on lines, and each line should be connected to other lines
- e. Words should be in "units", i.e. one word per line.
- f. Use colors throughout the mind map.
- g. The mind should be left as free as possible to make associations and connections.

Mind maps go under a variety of names. They are known as concept maps, semantic mapping, knowledge mapping, think-links, graphic organizers or

cognitive maps (Svantesson, 1989). Mind mapping uses the brain's ability to visual recognition to get maximum results. The combination of colors, images, and curved branches makes the mind mapping more visually stimulating than traditional recording methods that tend to be linear in one color. This will show students more information. Examples of interesting mind mapping images.

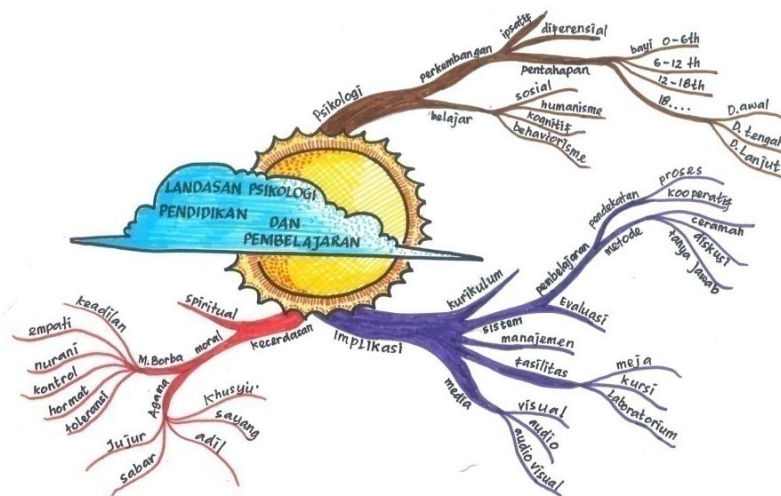


Figure 1 An example of mind mapping

Source: Course of Education and Learning Foundation (2011)

Mind mapping allows students to develop their thinking skills to better understand the various materials they receive. Students not only write and record the book but by mapping a concept map of the material will make it easier for students to understand the material. Students in learning just listen to the explanation from the teacher and record in the notebook only. This will make it difficult for students to understand clearly. It is as described by McGriff (2007) that relating images to concepts is a creative task which requires thinking instead of memorizing. A recent study (Adam and Mowers, 2007) shows that students who could express their learning with visual skills had a 40 percent higher retention rate than that of just verbal learners.

Mind mapping is a creativity- and productivity-enhancing technique that can improve the learning and efficiency of individuals and organizations (Mento, 1999). Mind mapping as one of the innovative methods is very helpful for students in learning. Mapping the concepts they capture and pouring into an attractive map with different and interesting colors will make it easier for students to remember and understand the material. Mind mapping also makes students better understand the brain and find ways to ease the brain to learn and remember information. If students can make the brain easy to learn then students can mobilize the mental and physical potential of students with the maximum.

Schneider and Bowen (1995) note that people naturally form a "cognitive schema" (a type of mind map) in their minds that allows them to make efficient sense of how different things in the world work. Mind mapping represents a powerful aid for stimulating whole-brain thinking (Buzan, 1989). Mind mapping as one of the innovative methods is very helpful for students in learning. Mapping the concepts they capture and pouring into an attractive map with different and interesting colors will make it easier for students to remember and understand the

material. Mind mapping also makes students better understand the brain and find ways to ease the brain to learn and remember information. If students can make the brain easy to learn then students can mobilize the mental and physical potential of students with the maximum. Mind mapping is also one of the learning methods that require students to more creatively map out the accepted material concepts as attractive as possible. With an interesting mapping then students will be interested to learn. If students can make the brain with the maximum then students can mobilize the mental and physical potential of students with the maximum.

Mind mapping can train students' maximum creativity in learning. In the students' economic learning outcomes basically, prefer creative learning rather than memorizing the information provided by the teacher. Creative learning is seen to accelerate students' understanding because it can develop the ability of imaginary activity, demonstrating the ability to interpret all information unusually. Therefore, in making mind map every student has a different imagination so that there is a possibility of variation of mind map produced by students. And from the mind mapping results show how students pour their creativity to help how to learn it yourself.

SMK Negeri 1 Malang is one of the vocational high schools in Malang which has both technical and non-technical program. Nevertheless at this vocational high school still apply the business economics subjects for additional knowledge. To simplify the delivery of material and achieve value in accordance with minimum competency standards

METHOD

This research uses descriptive qualitative approach. The qualitative descriptive method is used to collect data directly through observation, interviews, and taking the results of learning in the form of tests. The data obtained is described in the form of words to be a report. This research will be conducted in the implementation of PTK or Classroom Action Research based on the problems that have been described in the background.

Research subjects in this study are the students of class X AP Expertise Program SMK Negeri 1 Malang with the number of students as many as 40 students. Methods of data collection in this study are interview method, observation, field notes, and documentation. The sampling method is the same as sampling in a quasi-experiment. According to Cresswell (2010: 232) in quasi-experiments using non-random samples, researchers usually use naturally formed groups (such as a class, organization or family) or volunteers.

1. Interview

Interviews needed in this study to determine the state of the subject of research such as the state of students in class X AP, the value of students before applied learning, and data about class activeness information on the subject of research.

2. Observation

Interviews needed in this study to determine the state of the subject of research such as the state of students in class X AP, the value of students before applied learning, and data about class activeness information on the subject of research

3. Field Notes

Field notes are used to record things or findings obtained in the field that is not summarized in the observation.

4. Documentation

This documentation is used to document activities in the form of photo or video of learning activities when applying the mind mapping method.

RESULT AND DISCUSSION

The results based on observations made in the classroom during the learning process took place by applying the method of mind mapping learning. In the learning process of teachers at the beginning of the learning explain the first step is to explain the purpose of learning, the material being taught, and the use of mind mapping learning method. The learning steps undertaken by the teacher consists of the beginning, core, and closing activities.

1. Initial activity

In the initial activity, the teacher opened the opening by praying, checking the readiness of the students in the lesson, explaining the purpose of learning, explaining what the purpose of the material will be taught, building student knowledge by asking about the material to be taught, and explaining the use of learning methods that will be used is mind mapping.

2. Core learning

The core activity is done by applying the mind mapping method. Before applying the mind mapping method, the teacher previously explained the subject matter of need and did the questioning. In this activity, students respond to the treatment of teachers by raising their hands and answering questions from the teacher. In this stage, there are still some students who seem not yet active in the learning process. Next is the stages of application of learning methods. The steps in applying mind mapping learning methods are:

- a. The teacher divides the class into 5 groups. Group selection is not based on race, religion, and race. In the application of this learning, the teacher assumes the students' ability to the whole class is the same.
- b. Explain the notion of mind mapping method of benefit and the steps that must be prepared students.
- c. Assign the students to create a mind mapping in groups from the media provided by the teacher in the form of paper and colored marker.
- d. Students present the mind mapping that has been created in front of the class and holds discussion and question and answers with classmates. This is according to recent research (Mento, 1999) To also get students thinking in terms of mind mapping, the first class and much of the future class board work developed by the professor is in the form of a mind map.

3. Closing

Closing is the last activity done by the teacher during the lesson. Closing is done to reflect all learning activities that have been done. At this stage, the teacher reviews the material with the students by way of question and answer, assigning tasks, and giving a closing greeting to meet at next week's meeting.

In the learning done by using this mind mapping method, students look active in following the learning. Deming (1994) discusses this phenomenon when he says that people are motivated to produce high-quality work when they take "pride and joy in the work". Students who initially look inactive, when applied

learning methods mind mapping students look actively discussed as a whole. This method is interesting in addition to applying, is also very helpful for students in the learning process because of the important points and use the colors of interest. In addition, in the application of this mind mapping students can develop creativity in making an interesting mind mapping.

CONCLUSION

Mind mapping is a cooperative learning method applied by creating concept maps for the materials in learning. Mind mapping is presented with attractive in several colors so it will be easy to use as a learning medium. In SMK Negeri 1 Malang, Economics Teachers apply mind mapping learning in material needs. The combination of learning methods and materials taught very appropriate and can help students in improving the activity of learning in the classroom. By using mind mapping learning method, it will be very helpful for teachers in building the learning activity in the classroom.

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