

## Mind mapping strategy: Can it be combined with jigsaw?

P. Sulistyowati

*Universitas Kanjuruhan, Malang, Indonesia*

**ABSTRACT:** The purpose of this study is to describe the application of cooperative learning type Jigsaw combined with mind mapping strategy in the lectures of Social Studies Elementary School in Prodi PGSD Universitas Kanjuruhan Malang academic year 2016/2017. This research uses qualitative approach with phenomenology method. The population of this research is PGSD student class of 2015. The sample of research class E2015, F2015 as 75 students. Instrument of research in the form of observation sheet, interview and lecture documentation. Analysis of data used: data reduction, data presentation, and verification / conclusion. The results showed, that the application of lectures using Jigsaw type cooperative learning combined with mind mapping strategy has been implemented in accordance with the learning step. Cooperative learning requires the cooperation and discipline of members of the group.

### 1. INTRODUCTION

Learning requires the skills to process information. Information processed should be information that is around the learner. In processing the information can be done through several steps namely: the learners must focus, existence supervision, converting conceptual understanding into skills (Joyce, et al. 2011). Often in the learning process students are not focused or not concentrated. No concentration due to the revise of active students. Lecturers in guiding learning is still less than the maximum so that students are not discipline in the class. Discipline is a character that must be built in the educational process. Character of learners at the present time has been much influenced progress of the era (Bachtiar, 2011). Understanding student learning outcomes only limited to understand the material but less in the skills to apply. Though the skills applied are teaching skills. A teacher is required

to master the teaching skills in accordance with the ability that must be owned by a teacher (Sumiah et al, 2013). In fact there are still many students do not have adequate teaching skills. It was seen when the students got the task of doing teaching simulation. One of the teaching skills is the ability to use varied teaching models and strategies. The growth of learning motivation in learners becomes one of the objectives of learning implementation.

Implementation of learning to be studied is a fusion of cooperative learning model jigsaw with mind mapping strategy. One of the business teachers stimulate students to be interested and creative in learning through the implementation of mind mapping learning strategy (Syaidah, 2015). In cooperative learning jigsaw students look comfortable on the activity, can increase knowledge, and can build relationships with friends of his group (Tran & Lewis, 2012). This is in accordance with

the form of learning Jigsaw in processing information and mind mapping foster skills sharpen the description of information. The outcomes of the learning process give meaning to the learning material as well as the learning experience. According to UNESCO program, effective learning in this century should be oriented to four pillars namely, (1) learning to know, (2) learning to do, (3) learning to be, and (4) learning to live together (Panduan Kurikulum Pendidikan Tinggi; 2014). The four can be described, that the educational process through various learning activities of learners directed to gain knowledge about something, apply or apply what it knows as a real action. These conditions make the individual as a better person in social life.

This research uses qualitative research methodology. Qualitative research is a research that seeks to open up various facts in the research location. Events and symptoms is completely and thorough can be explained through qualitative research (Rahmat, 2009). The research is free to explain the various phenomena that occur in the field. Disclosure of cooperative learning jigsaw implementation combined with mind mapping strategy.

## 2. RESEARCH METHODS

This research is a descriptive qualitative research by looking at the phenomenon that occurs during lecturing. Descriptive qualitative research is a study that intends to understand the phenomenon of what is experienced by the subject of research holistically and by way of description in the form of words and language in a natural context and utilize various natural methods (Moleong, 2010). The data consist of data about lecture implementation using Jigsaw type cooperative learning model combined with mind mapping learning strategy using observation instrument, student

learning experience obtained through interview sheet instrument, and documentation data in the form of picture or photo of learning implementation and student learning result test at the end Lectures. The course material that is studied is the material about the approach and learning models of social studies in elementary school. Data analysis by Miles and Huberman (Sugiyono, 2013) including: 1)

Data reduction, the action to analyze the data that have been obtained to be classified in accordance with the needs of research data, remove unnecessary data, 2) Presentation of data, is an activity of data exposure of research results that have passed through the reduction of data so that the data is appropriate to the needs of research to be informed, 3) The conclusion becomes the basis for taking further action.

## 3. RESULTS AND DISCUSSION

Based on the results of research obtained through the use of questionnaires instrument interviews on students, students feel more active when learning using Jigsaw type cooperative learning model combined with mind mapping strategy. The steps of implementing cooperative learning model Jigsaw combined with mind mapping strategy is contained in table 1.

**Table 1. The steps of Jigsaw cooperative learning model and Mind Mapping strategy**

Learning steps	Jigsaw's cooperative model with the Mind Map Strategy
1	Forming groups heterogeneously for groups of origin
2	Shared material assignments for expert groups
3	The expert group discussed the material according to the task
4	Expert group members returned to the original group to present the results of the expert group and discuss them
5	Prepare a blank paper with long sides placed flat
6	Use images, writing or photos for central ideas to draw, focus, help concentrate and activate the brain

7	Use color (colored pencils or color markers) for the connecting line	emphasizes the learning process of
8	Establish relationships between branches according to the performance of the brain to link sub-sub material to be more easily understood and remembered by color of dashes	active, independent students, creativity, imagination, and so learning outcomes will be maximally achieved. Imagination of students who appear tailored to the mindset of elementary students. They are like the pictures and the striking colors. It is visually appealing and can make it easier to remember. Observation lecture sheets are used to record things related to lecture activities conducted by students, lecturers and the atmosphere. From the observer observation, the result of the lecturer has done the teaching activity in accordance with the lecture plan. Lecture steps have shown a learning activity using Jigsaw type cooperative and mind mapping strategy step. The lecture begins with the introductory material by the lecturer. Then students formed group, each class is divided into 7 groups of origin. Then divided back into 5 groups of experts who discuss approaches, models, strategies, learning media and their advantages and disadvantages in the application of learning Social Studies Elementary School. Lecturers in guiding and directing the tasks that must be done by students is good enough, although there are still some students who still need more attention and guidance from lecturers. Less role of group members in the discussion not because it can not, it's more because students are joking or playing cellular phone. The course of discussion on the average expert group went well and get what it has to get. When returning to the original group to deliver the results obtained from the core group to the members of the original group there is a member who records what one of the group members is saying, then in turn rotates the other members to be noticed and recorded the group. Making the report of the discussion results in the form of mind mapping runs smoothly and at this stage all members of the group participate because Each must create a form of images taped to the sheet of paper that will be made mind mapping,
9	Providing individual quizzes on all materials (presenting the results of the discussion in the original group)	
10	Awarding of each group of origin	

Source: Slavin (2009) dan Buzan (2011)

In the Social Studies Elementary School learning lessons using cooperative learning jigsaw type combined with mind mapping strategy, students formed groups of origin and then subdivided into core groups to discuss learning materials that must be studied and the material is in accordance with the teacher's instructions. Each core group discusses different material. Upon completion the core group members return to their respective groups of origin. Each group of origin will discuss the same material. The execution of material discussion in the original group is then made in the form of a report and the report should be presented in the form of mind mapping. So that from this proses will be visible how student activity and the learning outcomes. Discussion activities on the core group to achieve the same material understanding. It has helped ease the mastery of the material individually.

From discuss aktivitas can be discussion of learning materials more deeply and broadly up to find examples of lesson IPS teaching implementation that makes students less understand the subject matter. Group discussions make the student's workload lighter because each one helps each other although there are also members of the group who are still passive and need encouragement from his friends. By making the report in the form of mind mapping shows the creativity of students pouring explanations with various shapes and colors of interest. This is in line with Olivia's statement (2004) mind mapping

## ***Mind mapping strategy: Can it be combined with jigsaw?***

*P. Sulistyowati*

writing material, and decorating. After completing the making of mind mapping lectures ended because the time has run out. At the next meeting each group of origin presented the results of the report in the form of mind mapping in front of the class. Each member is given a task to explain and answer questions from other groups. Another group that became an audience noticed and listen to the group explanation of the presentation, then given the opportunity to provide input, and Questions about group explanations of the presentation. Alternately, other groups present their group work. Apparently the student is quite creative in making explanations in the form of mind mapping. There was one group that experienced mistakes in mind mapping, the group made a concept mapping. After the lecturer explains the differences in mind mapping and concept mapping the group is asked to improve the return of their work. Lecturers review the material that has been studied together. Then performed the final test to find out how far the students have dominate the material.

Student learning outcomes of post test results most students get a good value in accordance with the limit of 70 and above. Although there are still students who have less value, this is due to several factors, among others: Students who are less serious follow the lecture and group discussion, because the implementation of lecturing lesson IPS Elementary school held several meetings there are some students at certain meetings do not follow the lecture with reasons sick or other purposes so they missed the lecture material, there are also students who are less active in the lecture and less active to seek and learn the material that must be controlled. In the learning is able to grow a critical thinking, cooperation, ability to speak and confident. The condition is planned by the lecturer by requiring each member to convey the results of the

discussion both in group and during presentation between groups.

## **4. CONCLUSIONS**

Based on the results of the study, Implementation of Jigsaw type cooperative learning model implementation combined with mind mapping strategy in Social Studies elementary school learning lecture can be concluded that: the implementation of the lecture goes according to the lesson planning using the jigsaw type cooperative model combined with mind mapping, students feel the lectures more activity so as to reduce boredom, most students feel more understanding of the material with discussion and assignment activities. The skill of making material illustrations in the form of mind mapping also hone creativity. Skills to speak both in discussions and presentations can make students more confident. Cooperation among group members can train students to control themselves and socialize better. Learning outcomes that students can achieve between 70 to 95, but some students get a score below 70 because they are less serious in lectures and do tests, not entering while studying the material used for the test.

Suggestions that can be submitted from the results of this study are, preferably fewer group counts to further shorten the time and students easily understand the material, more often use the form of learning to train student creativity, discipline in social interactions within the group, can be used as a reference to implement other combination learning to make learning variations

## **REFERENCES**

- Bachtiar, Yudi. (2011). Resistance of Indonesian Construction in Digital Era. Bandung: Portal Garuda Jurnal Pendidikan Indonesia

- Buzan, Tony. (2011). *Smart book of Mind Map*. Jakarta: GramediaPustakaUtama.
- Joyce.B, et all. (2011). *Models of Teaching (eighth edition)*. New Jersey USA: Pearson Education Inc, terjemahan, Yogyakarta: PustakaPelajar.
- Moleong, L. J. (2011). *Qualitative Research Methodology (Revision edition)*. Bandung: Remaja Rosdakarya
- Olivia, Femi. (2008). *Eager to Learn with Mind Mapping*. Jakarta: Gramedia
- Rahmat, SaefulPupu. (2009). *Qualitative Research..Journal Equilibrium, Vol.5, No.9*
- Slavin, R.E. (2009). *Cooperative Learning, Theory, Research and Practice*. Bandung: Nusa Media
- Sudjana, N. (2009). *Assessment of Teaching and Learning Process Outcomes*. Bandung: PT Remaja
- Sumiah, Nani. (2013). *Analysis of Teacher's Teaching Skills in increasing Learning Result on Economic Subject in Senior High School*. Pontianak: Research Article
- Syahidah, Nuris. (2015). *Mind Mapping Methode as an Effort to develop Creativity of the Students in Economic Learning*. National Conference Surabaya 2015.
- Tran, Dat Van & Lewis, Ramon. (2012). *The Effect of Jigsaw Learning on Students' Attitudes in a Vietnamese Higher Education Classroom*. International Journal of Higher Education Vol.1, No.2, 2012