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## Application of Learning Model Mind Mapping and Think Pair Share to Improving Activity and Student Learning Results

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### Abstract

Based on interviews and early observations before the research is known that the model by teachers is less varied, student less active in learning activities so that the problems caused to low learning outcomes. Researchers suggest to use more varied learnings models such as mind mapping and think, pair, share (TPS). Because the models can able to fix problems in the classroom. This research uses classroom action research (PK) with qualitative descriptive approach applied in class XI IPS 5 Brawijaya Smart School Malang City. The instrument used is an observation sheet interviews, tests, field notes, and documentation. The results showed student learning activity from cycle I is 68% increase in cycle II is 75%. While the average of the results of learning cycle I after the activity into 74 increased in cycle II to 84. Percentage completed classical learning in cycle I is 61% to 86% in cycle II.

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## INTRODUCTION

In Sudirman (2011:48) taught is process giving knowledge to child's that it will hope of creating the process of understanding. To reached effective learning activity, in this process teacher give the responsibility to create and build the effective learning activity through the best plan learning activity, varied learning models, enjoyable learning process, adequate media, and good evaluation. The conventional learning method is considered less effective to increase student participation in the class and not able to make the students become independent in the learning process. So that the teachers need to use the various model to reach the learning goal which is expected one of them is cooperative learning model.

Suprijono, (2010:54) argues that "cooperative learning model creates and the principle of Frobel is the children should work by his self, work by searching, understanding, observing, and learning the materials. Based on the interview results with teacher of economic in Brawijaya Smart School Malang said: "during this time I use conventional lecture and group discussion in every learning, furthermore I also use prezzi learning media so that the students are interested to learn independently because there are a description material and exercise that they have to do. If using the more variated model of learning like a jigsaw, NHT, STAD, TPS is can't that is a broader concept covering all types of group that lead by a teacher." So that needs a changes learning method from conventional to cooperative which makes student being more active in the class. The student activity as well as learning, has not been learning if there is no activity in learning process like Frobel said (in the interaction and motivation of teaching and learning 2011:96) that "human as the creator." Naturally, the students there is an encouragement to do because it is too busy. I prefer using simple learning models like a group discussion. Basically, the activity of class XI IPS 5 student still less when the student learning process. The learning result when daily test are often not as expected, many students whose scores are the minimum exhaustiveness criteria (KKM) so that for my assessment I prefer to give assigned tasks in the classroom every day. So that the method can reach a good score." (ZR 35 years old)

In fact, the teacher should develop a learning model that involves student becoming more active and able to improve the learning result. Besides the interview, another reason for this research is the researcher's experience during carrying out the field practice study (KPL) in the class. At the time of learning took place the classroom atmosphere is not different from the condition observed when the teacher economic subjects teach. Students tend to be passive and not focused on the material presented, seen when the teacher gives the opportunity to ask or express about the material discussed but only certain students are active and enthusiastic following the learning. From student questionnaire which contains an evaluation of teachers that filled by students are suggested to use enjoyable and variated learning models. These findings illustrate that the quality of learning is not effective, so the score of students learning is low. Of the 28 students in XI IPS 5 got the score < 75 is 17 student and the student are got a score > 75 is 8 students and 3 students are not able to join the exam. so that, this economic learning quality is not good enough and we should find the solution to solving the problem.

I hope, there are mind mapping and think, pair, share (TPS) models can improve the activity and the result of the study. That two models are convenient to combine, because of the point of activated, creativity, and improve students memory. Mind mapping is one of the learning models that use to train creativity, memory through a few of maps or diagram about keyword, concept, illustrate from a learning material. According to Tony Busan (Huda, 2013:307) for started mind mapping are can do by writing an idea in the middle of the page and can develop in a whole direction to creating some diagram. According to Silberman (Shobirin, 2014:105) mind mapping is a creative method to produce an idea, notes, or plan a new duty. Mind mapping can build many ideas and trigger the memory.

Cooperative learning models think pair share (TPS) are learning to increase students response quality and every student in the group has an opportunity to present their idea. According to Hamdayana (2014:204), this learning process does with 3 steps, thinking, where is the student should be responsible, think, and solving the exercise from the teacher. Pairing, where is student should be a team working and discussion with their friends to find the answer from teacher's question with mind mapping that the student has done, where the student got the opportunity for presentation a result their discussion in front of the class. Therefore student can be more active and motivated in a learning process that applies mind mapping and think, pair, share (TPS) models.

## **METHOD**

This observation uses qualitative descriptive approach because this approach is adapted to a problem that will be solved, with the intention of for improving activity and the resulting learning after there is a model application. The kind of used observation is classroom action research and there are 4 steps, planning, action, observation, and reflection. In every step, there is 3 gathering. This observation held in Brawijaya Smart School Malang, with an observation subject is student XI IPS 5. Presence the author during the observation is not allowed represented and not allowed leave the observation place. This is due to because the author has an important job as action planner that will hold, the source of data collection, data analysis and as the main informant of the result observation that has been done. Instrument data collection that be used is observation sheets, interview, test, notes, and documentation.

The instructional of learning instrument is obtained from the observation sheet by the observer and analyzed by using the following formula.

$$N = \text{total score} \div \text{maximum score} \times 100\%$$

An indicator of learning is determined total maximum score obtained is 20. After the value or scores of learning, activity is known then will use classified learning activity criteria according to Akikunto (2013:281). As for the instrument of student learning outcomes is obtained from the implementation of pre-activity test and post test activity conducted before and after the learning process using the learning mind mapping and think, pair, and share (TPS) model. Pre-test activities are used to measure student's early abilities while learning outcomes are

compared with the post activity test of each cycle. There is 20 type of worksheet. Analysis of student's outcomes can be done with the formula below:

$$KB = \frac{NI}{N} \times 100\%$$

Description:

KB: completed learning

NI: a total of students who get  $\geq 75$

N: total students

Student learning activities are measured using observation sheets of learning activities by accessing through score screening in student activity observation sheets provided by the researcher. The following data formula:

$$P = \frac{F}{N} \times 100\%$$

Description:

P: percentage achievement of learning activity

F: total score obtained

N: total score maximum

Student completed learning criteria after calculated using success criteria of the learning process by Arikunto (2013:281).

## **RESULT AND DISCUSSION**

Classroom action research with the application Mind Mapping learning model and Think, Pair, Share (TPS) beginning with initial observation and planning. At the time of initial observation encountered problems in the class such as: (1) teacher only use the lecture model and conventional group discussion so the student feels bored and less motivated to follow the lesson. When applied large group discussion most of the student just become free rider so the discussion did not go well; (2) student tend to be passive or only a few students who can follow the lesson caused by a lack of opportunity for student to participate in the learning process; (3) lack of handbooks result in it difficult for student to access information related material being studied so it requires them to find the source of information from the handphone or browsing. That matter can be misused by the students to open beside to the subject matter, for example, social media or online games; (4) student learning outcomes much less of the minimum criteria (KKM). The low understanding of the student on the subject matter resulted in low learning outcomes, seen from 28 student in the class XI IPS 5 who got score  $< 75$  as many as 17 students and who got  $> 75$  as many as 8 students and 3 students did not take the exam (value UH semester odd precept year 2016/2017).

After finding the next problem planned action will be done on the 1st and 2nd cycle research, by using the instrument of observation sheet of learning implementation with Mind Mapping learning model and Think Pair Share (TPS) obtained a result from the implementation of learning in cycle 1 and 2 is as follow.

Table 1. The result of Learning Implementation

	Percentage of success	
	Cycle I	Cycle II
<b>Mean percentage of success</b>	84%	100%
<b>Category</b>	good	Very well

Source: Data Processed

Based on learning implementation data by using Mind Mapping learning model and Think Pair Share (TPS) be found to increase from cycle I 84% to cycle II 100% so that experience increase of 16%. The acquisition of data from 3 observers assigned to observing learning implementation by observation sheet of implementation which already made by the researcher. Where the data is obtained from each meeting.

Whereas for the result of student learning class XI IPS 5 SMA Brawijaya Smart School Malang city which obtained from the post-test activity after applied Mind Mapping learning model and Think Pair Share (TPS). Obtained result of student learning as follows.

Tables 2. Student Learning Result

	Percentage of success	
	Cycle I	Cycle II
<b>Mean post activity value</b>	61%	86%
<b>Information</b>	Increased	

Source: Data Processed

Based on percentage table of student learning result class XI IPS 5 SMA Brawijaya Smart School on cycle I and cycle II show an increase. In the cycle, I obtained a success percentage of 61% and cycle II by 86%. Student learning activities obtained from student activity observation sheet which is rated by 3 observers based on the category which has determined by a researcher at the time of learning by using Mind Mapping learning model and Think, Pair, Share (TPS) are as follow:

Table 3. Student Learning Activities

	Percentage of success	
	Cycle I	Cycle II
<b>Post activity learning activities</b>	68%	75%
<b>Information</b>	Increased	

Source: Data Processed

Based on percentage table of student learning activities class XI IPS 5 SMA Brawijaya Smart School Malang city which consists of 28 students obtained the mean percentage of completeness learning activities on cycle I 68% and cycle II 75%. So it can be concluded that an increase in the percentage of student learning activities on cycle I to cycle II.

Application Mind Mapping learning model and Think, Pair, Share (TPS) applied to the cycle. During the lesson execution cycle I, application Mind Mapping learning model and Think, Pair, Share (TPS) has not been implemented maximally. In cycle I due to some constraints such as the learning atmosphere not conducive, student do not understand the material as well as the model applied in the learning process that is Mind Map and Think, Pair, Share (TPS) thus resulting student less active during the Mind Map and group discussions with another student, learning preparation do not maximal such as student don't bring stationery such as color marker, ruler, and divider used in making concept map. Such problems lead to the difficult teacher to condition student who has not understood the learning steps which use Mind Map learning model and Think, Pair, Share (TPS) due to equipment limitations. Besides the availability of book economic package in the library is small, thus hampering the student in following the explanation of the teacher and make a Mind Map because the student has to take a turn in using the book other than that the wifi in the class is not working fine.

While in cycle II, applied Mind Mapping and Think, Pair, Share (TPS) said to have done well. This is because the problems in cycle I can be repaired in the cycle II. Hermoso (in Shiomin, 2014:105) states that mind mapping is a very good way to produce and organize ideas before starting writing. Mind Mapping is a technique for sharpening the whole brain using visual imagery and graphics to form an impression. The brain often remembers information in the form of image, symbol, sound, shape, and feeling. Mind Mapping can also improve ideas and spur on easy memory. Mind Mapping facilitates student in understanding the subject matter in the form which is a concept because it is shaped concept map which contained branch, picture, phrase, and concept and can train student creativity in expressing their thought.

Besides the advantages of Mind Mapping learning model by Shaymin (2014:107) is this model is quick to do, can be used to organize ideas that come to mind, the process of drawing diagrams can come up other ideas and can be a guide for writing. The teacher also plays an important role in addition to the advantages of the model because the teacher is a facilitator who should be able to control activities of a student in the learning, the teacher has done the learning well and according to predetermined learning steps. The student is able to understand the materials and model applied in learning that is Mind Map and Think, Pair, Share (TPS).

With student understanding of the material and applied model makes the student become active in learning as seen in the group discussion when applied model Think, Pair, Share (TPS). This is in accordance with that applied by Rambitan (2013:117), with cooperative strategy Think, Pair, Share (TPS) that is a facilitator, where teacher only help student who is having difficulty in the learning process, complete material if any have not been submitted by the student and provides reinforcement to the material that has been discussed. So as to train student independence in cooperating with other and convey the result of the discussion. If the model with a Mind Mapping learning model is very appropriate this is supported by the theory put forward by the Silberman (in Shobirin, 2014:105) Mind Mapping or mind mapping is a creative way for every learner generate ideas, record what is learned, or planning a new task.

So that with the implementation of Mind Map learning model and Think, Pair, Share (TPS) can develop student ability in understanding, memorize and associate the theory with the problem that exist in everyday life so can improve student learning outcomes besides the learning model is able to make student active in learning because their learning activities increase from start looking for material through learning resources, pouring in the form of concept, understand what they write, understand, discuss, give respon and expressed his opinion in front of other teacher and student. To achieve the learning objective of teacher and student must synergize in creating a fun atmosphere of learning so the problem in cycle I can be fixed cycle II.

Learning outcomes of student cognitive domain on the economic subject by using Mind Mapping learning model and Think, Pair, Share (TPS) in cycle I is said to be low. This is because the student has not understood the learning model applied by the teacher. So a student cannot follow the learning as expected. Under communication of book economic package provides by the school as well as student unpreparedness in receiving the subject resulted in a student being less active in conveying opinion. In addition, the student is accustomed to using the lecture learning model, and conventional group discussion so student rarely read or have a record of the related material being studied thus making it difficult for a student to understand the subject matter. The model that is often used in learning is considered the less involving student in learning so the opportunity of the student to express their thought or opinion very little. When making Mind Mapping and discussion only a few students who dominate in working and doing cooperation with another student. It causes the ability of student in understanding the concept and less developed material.

Whereas in cycle II, student learning outcome is increasing. Student cognitive learning outcomes also meet the completion of learning in a classical way. This is because at the time of learning took place more motivated student to express his opinion in public. The readiness of student during the learning process because the teacher gives the student appeal for learning to learn the next material and bringing equipment and learning resources from home facilitate them in following the learning with Mind Mapping learning model and Think, Pair, Share (TPS). By the time the teacher explain the student material is easy to respond to the question asked by the teacher because they learn from home then when the student discussion is active in exchanging opinion with another student. Student enthusiastically follows the lesson because they already understand the model applied by the teacher, many students took the initiative to come forward to convey the result of the discussion because it gets point from the teacher. Then student helps each other learning difficulties. According to his opinion Shoimin (2014:208) "Think, Pair Share (TPS) is a model of cooperative learning that gives a student to think and respond and help each other". This kind of paired discussion is a straightforward way to encourage positive student interaction, making student help each other exchange ideas and understanding in learning and expanding student attention.

On the economic subjects of the tenth grade of Taman Madya Malang is known to improve student learning outcomes in the cognitive sphere of cycle one to cycle two of 33.34%. affective learning results occur from cycle one to cycle two with percentage 9%. psychomotor domains increased in cycle two by 33.33%,

Hapsari (2015) with the application of thinking pair share techniques to improve motivation and learning outcomes on economic subjects of eleven graders in 2 public SMA 1 Singosari semester of the academic year 2014/2015 is known to increase student learning motivation by 81,6% and result of study of average class average 86,67% and research conducted by Azizah (2015) with title applying mind mapping learning model to improve creativity and learning result of ten class student cross economic interest 2 on Economic subjects at SMAN 9 Malang academic year 2014/2015 can increase student creativity score cycle 64 increase in cycle two of 85, student learning outcomes increase cycle one 75 and cycle two 89. classical learning completeness cycle one 39% to 94%.

Student learning activities on the implementation of learning cycle one are still said to be low, this is because most students have not dared to argue, ask, argue when learning takes place, especially during discussion activities in pairs. only some students who are active in learning such as making a mind map and doing discussions with other students because they do not understand the material and the steps of good learning. there is dominance in learning, students in the active sequence of front seats and students who escape the supervision of passive teachers.

After the applied model of learning mindmap model and think pair share student learning activity in cycle two has increased because of a student more active, motivated and enthusiastic in the following learning. learning activities are seen from several indicators as suggested by Paul d.dierich cited Hamalik that learning activities include activities of visual activity, listening, writing activities, drawing activities, metrics activities, mental activities, emotional activities. Before the implementation of learning model is known that the learning activities of students is less because usually only using conventional lecture and discussion model where students are not all active in learning and tired of listening to teacher explanations. after applying mindmap model and think, pair, share student learning activity increase in cycle two seen with existence of indicator which previously in cycle one did not appear but in cycle two student have fulfilled that indicator. therefore the hypothesis of this research has proven that mind map model of mind and mind, pair, share can improve the result and student learning activity on economic subjects student of class 11 IPS 5 SMA Brawijaya Smart School Malang.

## CONCLUSION

Application of mind mapping learning model and think, pair, share to increase activity and student learning outcomes on economic subjects class eleven social science five in Brawijaya SMA Smart School can be concluded as follows: the application of mind mapping learning model and think, pair, share in cycle one not yet optimal because there are some obstacles and stages are missed. it can be proven from the observation sheet of teacher activity and field note which has been filled by observation. but the constraint can be over in cycle two so that it is increasing from cycle one to two. Application of mind mapping learning model and think, pair, shareable to increase activity and result of student learning on the economic subject. it can be proven from the activity and student learning outcomes that increase from cycle one to two

## REFERENCES

- Arikunto, S. (2013). *Dasar- Dasar Evaluasi Pendidikan Edisi 2*. Jakarta: PT Bumi Aksara
- Azizah, R. (2015). *Penerapan Model Pembelajaran Mind Mapping untuk Meningkatkan Kreativitas dan Hasil Belajar Peserta Didik Kelas X Lintas Minat Ekonomi 2 pada Mata Pelajaran Ekonomi di SMA Negeri 9 Malang Tahun Pelajaran 2014/2015* (Unpublised Thesis), Universitas Negeri Malang, Indonesia.
- Hamdayana, J. (2014). *Model dan Model Pembelajaran Kreatif dan Berkarakter*. Bogor: Ghalia Indonesia
- Huda, M. (2013). *Cooperatif Learning (Model, Teknik, Struktur dan Model terapan*. Yogyakarta : Pustaka Pelajar
- Rambitan, V., et al. (2013). *Pengaruh Strategi Pembelajaran Berpola Pemberdayaan Berpikir Melalui Pertanyaan (PBMP) dengan Think Pair Share (TPS) Terhadap Pemahaman Konsep Siswa Multietnis*. Jurnal Penelitian Pendidikan, 23 (1): 111-122.
- Hapsari, R., W. (2015). *Penerapan teknik pembelajaran Think, Pair, Share (TPS) untuk meningkatkan motivasi dan hasil belajar pada Mata Pelajaran Ekonomi Siswa Kelas XI ISS 2 SMA Negeri 1 Singosari Semester Genap Tahun Ajaran 2014/2015* (Unpublised Thesis), Universitas Negeri Malang, Indonesia.
- Shoimin, A. (2014). *68 Model Pembelajaran Inovatif dalam Kurikulum 2013*. Yogyakarta: Ar-Ruzz Media
- Suprijono, A. (2010). *Cooperative Learning Teori dan Aplikasi PAIKEM*. Yogyakarta: Pustaka Pelajar