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Application of the Mind Map Model to Improve Students' Understanding of Indonesian Ethnic and Cultural Diversity Material

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Abstract. The problem in this research is the students' lack of understanding about the material of Indonesian ethnic and cultural diversity. This is caused by the use of the social studies learning model being less able to generate student motivation. This research was conducted in the fifth grade of SDN Babakan Bandung Tanjungsari, Sumedang Regency, totaling 33 students. The model in this study uses the Kemmis and Mc Taggart classroom action research model. This research was conducted in two cycles. Each cycle consists of one learning and four stages, planning, implementation, observation, and reflection. The research instruments used were observation sheets, field notes, documentation, assessment guidelines, and interview sheets. Data analysis techniques used are qualitative data analysis techniques and quantitative data. Based on the research that has been done in the first cycle the average value of student understanding is 69, in the second cycle, it increases to 80. These results indicate that the mind map model can improve students' understanding of the material on ethnic and cultural diversity in Indonesia.

Keywords: Understanding, Mind Map, Ethnic and Cultural Diversity in Indonesia, Social Studies.

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INTRODUCTION ~ Social Sciences is a science that studies the social life of people and humans in the surrounding environment and is one of the subjects that studies social problems that occur around which include social relations. Social relations are included in the scope of the scope of social science. This is a form of learning from the evidence that there are social relationships, in accordance with the concept of humans as social beings. This demands that humans have a social spirit, so that they make norms and values as a reference for life. The meaning of social is everything related to society and communication, it comes from the KBBI. It can be concluded that the relationship between humans needs to be studied in order to maintain the relationship that exists, thus creating a harmonious life.

Various sciences are learned from an early age, including at the elementary school level. The cognitive development of students in acquiring knowledge occurs in three stages according to Bruner, namely the enactive, iconic, and symbolic stages. The symbolic stage is the stage where students understand the facts through processing concepts and relationships between concepts logically (Djuanda, 2008).

One of the sciences studied is social science. Several scopes of social studies are studied in elementary school, namely economics, geography, culture and history. All the scopes of social science, presented in the form of integrated and

integrative learning, are packaged in social sciences. According to (Setiana, 2016) integrative learning is learning that is presented by uniting various scientific disciplines. Both interdisciplinary and interdisciplinary sciences can be combined into an integrative learning, so that it can make several different fields of science into a single unit. Integrative learning in the social sciences taught in elementary schools is the interdisciplinary social sciences presented in social studies subjects. For example, the social science of geography can be combined with the social sciences of history or the socio-cultural sciences can be combined with various social sciences.

The development of social, intellectual and individual life is a category of social science goals (Hasandalam (Supriatna, Mulyani, & Rokhayati, 2010)). Aspects that are required in learning are not only aspects of knowledge but also aspects of attitude that get attention from these goals. This is in line with the demands of the 2013 curriculum which is presented in integrative learning. In addition, competency skills are also emphasized in order to create a balanced student personality between the knowledge possessed, the attitude shown and the skills mastered. Social studies learning in the 2013 curriculum has met the expected demands, which include various competencies and their integration with other subjects. In addition to social studies lessons, Indonesian language lessons can also contain social studies material. The material is presented in a reading about the life around students. For example, reading about community culture, history and economics. According to (Suyono, Titik, & Wulandari, 2017), this is done as an effort to improve students' understanding ability to process data acquisition from an information as well as the meaning of a reading.

However, based on the results of observations made by looking at the achievement of student scores that are still below the average and also the teacher still does not understand the flow of activities that must be carried out in this thematic learning. Then the learning that is carried out is still very much pegged to the steps of the activities in the teacher's book and still has not made learning innovations. This can be an obstacle for students to acquire and understand in depth the knowledge that is the subject matter, especially social studies learning on the material of Indonesian ethnic and cultural diversity which has stronger characteristics in the memory aspect because it discusses the names and characteristics of each region. This will have an impact on student learning outcomes that are not good. This is also reinforced as stated by (Windura, 2008), "something that is patterned will cause brain boredom."

Based on the results of these observations, there are many innovations that can be done to implement learning that can improve students' understanding ability in studying social studies. These innovations can be in the form of the use of learning approaches, learning models, multi-methods used or learning media that are also used in the process of implementing social studies learning. One of the learning innovations that can be used to improve these abilities is the *mind map* learning model . *Mind Map* is a visual technique that can align the learning process with the natural workings of the

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brain (Buzan, 2007). The *mind map* model becomes a route map that can facilitate memory, make students organize facts, thoughts and get memories that are much easier and become a good technique than having to take regular notes. This will be an interesting experience where students are faced with a learning process in which direct experience, so that it will be an additional force in receiving, storing, and producing whatever is learned.

According to Windura (2008: 24), Mind Mapping can easily be made in the following order: (1) Reading the subject matter or articles that will be made Mind Mapping. This stage aims to understand the structure of the subject matter, as well as to find the main idea or idea, (2) Write the main title of the material in the middle of the drawing paper, with the aim that we are more flexible, brave and more creative to create thoughts from the subject matter. (3) Write down the main branches and color each branch with a different color. (4) Looking for key words and writing down the words in each branch to develop Mind Mapping (5) Adding pictures to key words to strengthen memory.

According to Huda (2015: 307) explains that the steps for learning mind mapping are: (1) Recording the results of the lecture and listening to the points or keywords of the lecture. (2) Show the networks and relationships among these various points/ideas/keywords related to the subject matter. (3) Brainstorming everything you already know about the topic. (4) Planning the early stages of idea mapping by visualizing all aspects of the topics discussed. (5) Organize ideas and information by making them accessible on one sheet only. (6) Stimulating creative thinking and solutions to problems related to the topic of discussion. (7) Review lessons to prepare for tests or exams.

Buzan (2007) also explains the steps in making *mind mapping* . Here are seven steps in making a mind map: (1) Start from the center of a blank sheet of paper with the long side laid flat. Because starting from the middle gives the brain the freedom to spread out in all directions and to express itself more freely and naturally. (2) Use pictures or photos for your central idea. Because a picture means a thousand central words more interesting, keeps us focused, helps us concentrate, and activates our brain. (3) Use color. Because for the brain, colors are as attractive as pictures. Colors bring Mind Maps to life, add energy to creative thinking, and are fun. (4) Connect the main branches to the central image and connect the branches of level two and three to levels one and two, and so on. Because the brain works according to association. The brain likes to associate two (or three, or four) things at once. When we connect the branches, we will more easily understand and remember. (5) Make a curved line, not a straight line. Because straight lines will bore the brain. Curved, organic branches, such as tree branches, are much more appealing to the eye. (6) Use one keyword for each line. Because single keywords give Mind Map more power and flexibility. (7) Use pictures. Because like the central picture, each picture is worth a thousand words. So if we only have 10 pictures in our Mind Map, our Mind Map is equivalent to 10,000 word notes.

The mind mapping method has advantages that have a positive impact on learning, as stated by Warseno (in Agustina, 2013: 9) Some of the advantages of using Mind Mapping are: a. Can see the overall picture clearly. b. Can see the details without losing the common thread between topics. c. There is a grouping of information. d. It catches the eye and doesn't get boring. e. Makes it easier for us to concentrate. f. The manufacturing process is fun because it involves pictures, colors, etc., as well as g. It's easy to remember because there are visual markers.

Social studies learning using mind maps can improve students' understanding in elementary school. Based on research by (Susanti, 2016), the use of mind maps during the social studies learning process improves students' understanding and learning outcomes, besides the use of mind maps is considered better than conventional learning. Therefore, this study aims to determine the effect of mindmaps on students' understanding of social studies material on Indonesian ethnicity and culture. The stages of the research carried utare planning, action, observation and r eflection (Putriyani, Syafdaningsih, & Sumarmi, 2018).

METHOD

The design used is the research model of Kemmis and Mc Taggar 1992 with a systematic and planned cycle, this cycle will be repeated and sustainable. This research model consists of determining the initial idea, pre-survey or initial meeting, diagnosis, planning, implementation of action, observation, reflection and preparation of research reports (Tampubolon, 2014) . The length of time will make changes and meet the expected achievement targets.

Research sites

This research was conducted in one of the public elementary schools in Kab. Sumedang, West Java. The selection of the research location was based on several considerations including: The author understands the characteristics of students, teachers, teachers, staff and school conditions, through observations that have been made.

Research subject

The research subjects in this classroom action research were fifth grade students with a total of 33 students, consisting of 17 male students and 16 female students.

Data collection technique

Classroom action research instruments are all tools that will be used to collect data about all learning processes (Arikunto, Suhardjono, & Supardi, 2015) As for obtaining the data needed in research using a *mind map* model using several instruments such as interview guidelines, field notes, observation guidelines, lesson plans, written test evaluation questions, assessment guidelines.

Data Processing and Analysis Techniques

Data Processing Techniques

This action research processing technique is in accordance with the instruments that have been made such as interview guidelines, observation guidelines, field notes, and learning outcomes tests. This research data processing technique uses a qualitative approach which will then produce descriptive data from the results of the

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analysis. However, before analyzing the data, the results of the data must be scored on the student's test results. In this study, data processing was carried out from the beginning to the end of the implementation of the action. Data processing in this study can be classified in processing data processing and processing data results.

Data Analysis

Qualitative data analysis, in this study using observation sheets, interviews, and learning outcomes tests as instruments. In this observation sheet is used to determine the performance of teachers and student activities during learning. Learning outcomes test is used to determine the increase in student understanding. As for the assessment of observation sheets, and learning outcomes tests are adjusted to the indicators that should appear in learning.

RESULTS AND DISCUSSION

At the planning stage by applying a *mind map* model to improve understanding of the material on ethnic and cultural diversity in Indonesia, researchers prepared learning tools such as lesson plans, worksheets, observation guidelines, field notes, test sheets, and interview sheets. The lesson plan made by the researcher is adjusted to the steps in the learning model taken, namely the *mind map* model . At the planning stage in the first cycle there was a significant change, it was based on the application of the *mind map* model in learning the material on the diversity of ethnicities and cultures of Indonesia.

In the first cycle of action planning is the basis for planning the next cycle, namely the second cycle, because the second cycle is the result of the reflection of the previous cycle. Planning is an important part of learning, whether using a model or not, planning is made based on the steps of the learning model used. As explained by Arends (Suprijono, in (Yahya & Pramukantoro, 2013) "The learning model refers to the approach used including learning objectives, stages in learning activities, learning environment and classroom management". explaining learning model materials can actually be used to design learning materials that can contain learning objectives, so that in designing from the planning stage to the learning evaluation stage it can be used with a learning model, where the purpose of planning is to implement better and appropriate learning The following is a table of the increase in planning assessment in each cycle.

Table 1. Comparison of Teacher Performance Outcomes on Learning Planing

Activity	Number of Criteria					Total Percentage						Final Percentage
	Very well	Well	Enough	Not enough	Less once	Learning objectives	Material selection	Source/Media	Learning scenario	LKS Setup	Learning outcomes	
Cycle I	6	-	-	-	-	100 %	66,6 %	100 %	93%	100 %	80 %	89,9 %
Cycle II	6	-	-	-	-	100 %	88,8 %	100 %	100 %	100 %	97 %	97,6 %

After that, in the implementation of learning material on the diversity of Indonesian ethnicities and cultures by applying the *mind map* model , it was carried out in two cycles. Based on the results of research observations on fifth grade students of SDN Babakan Bandung, the researchers found some positive changes, as for the findings found in this study.

In the first stage, namely the position of the cardboard, which is placed horizontally. From the results of these observations, it was found that students became more flexible in making pictures when the cardboard was placed horizontally. This is reinforced by the opinion of Buzan (in (Rahayu, 2018)), "starting from the middle gives the brain the freedom to spread in all directions and to express itself more freely and naturally".

The second is about the image on the main idea. The use of pictures on the main ideas made by students during learning helps students to remember the core of the material being discussed in outline more easily. This is also reinforced by Buzan (in (Fadhilaturrahmi, 2017)) that, a central image will be more interesting, make us focused, help us concentrate, and activate our brain. And this finding is also reinforced based on Bruner's learning theory which explains the stages of learning at the iconic stage that students begin to understand life facts and concepts through pictures and verbal visualization.

The third relates to color, when learning with the *mind map* model , students use color using color tools such as crayons, markers, and colored pencils. From the results of the *mind map* made by students, the use of color gives a more attractive appearance. This finding is in accordance with the opinion of Buzan (2013, p. 15), namely "color makes the *mind map* more alive, adds energy to creative thinking, and is fun!"

Fourth is the use of branches. Branches are used to connect branches in an image. The use of branches carried out by students in its implementation is described from the main idea and then connected through the first branch to the next branch according to the flow of discussion. From these branches, it is easy for students to group discussions in a structured manner from one discussion to another. Then this is also in line with the statement of Gestalt theory in (Hidayat, 2011) that 'everyone gains knowledge through information by looking at its structure as a whole and then rearranging it in a simpler structure so that it is easy to understand'. Then this finding is reinforced by (Buzan, 2013) "If we connect the branches, we will understand and remember more easily".

Fifth, regarding the use of connecting lines, when students make lines in the *mind map the* teacher instructs them to use curved lines instead of straight lines. Because in drawing, students when using curved lines, students do not need to use a ruler to make lines, in addition to facilitating the drawing process, curved lines can also make the image not stiff. Because it is in line with the opinion (Buzan, 2013) that "straight lines will bore the brain", therefore, curved lines are applied to the *mind map* .

The sixth is the use of keywords for each line, the use of keywords in the *mind map* in the learning conducted at SDN Babakan Bandung at first experienced

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difficulties. Often students make not keywords but sentences in each line. However, at the next meeting the students were able to correctly create keywords on the *mind map* . The use of keywords in the form of sentences turns out to make students more focused on developing concepts. Likewise, the opinion of (Buzan, 2013) that " *Mind maps* that have sentences or expressions are like a han where all the fingers are tied by a stiff splint!". The meaning of this statement is that if in a mind map using sentences, it makes the mind map rigid towards one idea, it does not trigger new thoughts.

The seventh is the use of images, in the use of students' images in learning about the material of Indonesian ethnic and cultural diversity, using images on the mind map they made. The images also vary from animal themes, food, buildings, flat shapes, and others. From each picture made easier for students to remember the material in the picture. Because according to (Buzan, 2013) states "Every picture means a thousand words". This makes it easier for students to remember information from one branch to another. This is in line with the opinion of Sprenger (in (Yanthi, Ananthia, & Yuliariatiningsih, 2015)) which states that 'The use of image visualization can help children remember 80-100% of the information they see or hear.

Tabel 2 Comparison of Teacher Performance Values in the Implementation of the *Mind Map* Model for Indonesian Ethnic and Cultural Diversity

Activity	Total Percentage					Final Percentage
	Pre Learning	Unlock Learning	Core Activities	End Activities	Evaluation	
Cycle I	100%	97,6%	66,6%	90,9%	86,6%	88,34%
Cycle II	100%	100%	83,3%	100%	97,6%	96,18%

Learning activities can be more meaningful for students, and students can be actively involved in learning, and improve students' understanding in learning, this can be done by applying learning models, one of which is applying the *mind map* model in learning.

In a study that was conducted at SDN Babakan Bandung, students made a *mind map* in the form of notes from a cardboard to make it easier for students to memorize and understand the material by using colors, pictures in it. This is reinforced by several experts such as according to Buzan (in (Fauziah, 2017)) that " *Mind maps* are an easy way to generate imagination and help you remember". According to (Agustin, Wahyudi, & Suyanto, 2016) " *Mind map* is one of the techniques using creative image media and can be used by teachers during learning with the correct concept, so that the material does not come out". This is evident in the results of the understanding test on the diversity of ethnic groups and cultures of Indonesia by applying the *mind map* model to their learning. The following is an increase in

the understanding test results obtained by the fifth grade students of SDN Babakan Bandung.

Tabel 3 Comparison of Completeness Scores and Percentage of Students' Understanding Tests

No	Activity	The number of Students		Percentage	
		Completed	Not Completed	Complete	Not Completed
1.	Cycle I	18	15	54,5%	45,5%
2.	Cycle II	26	7	78,8%	21,2%

Based on Table 3. above, it is concluded that the number of completeness and increase in each cycle. In the first cycle only 18 students completed with a percentage of 54.5%, in the second cycle rose to 26 students who completed with a percentage of 78.8%.

CONCLUSION

Based on the results of research conducted in class V SDN Babakan Bandung, Tanjungsari District, Sumedang Regency in social studies learning material on ethnic and cultural diversity in Indonesia with the *mind map* model , it can be concluded that.

Learning Planning, the percentage of planning in the first cycle reached 89.9% with the criteria of "Good", then there was an increase in the second cycle with a large percentage of 97.6% which was included in the "Very Good" criteria. This means that the target has been achieved.

Implementation of Learning, From the results of observations on the implementation of teacher performance in each cycle, it has been carried out for two cycles. Seen in learning each cycle, that the implementation of teacher performance has increased, starting from the learning process such as initial, core, final and student activities. The results of the implementation of the first cycle were 88.34% with the "Good" criteria, then in the second cycle there was an increase to 96.18% with the "Very Good" criteria. This means that the implementation of learning has met the target.

Improved Student Understanding, The results of students' understanding of social studies learning by applying the mind map model there is an increase in understanding of the material of Indonesian ethnic and cultural diversity. The increase in students' understanding can be seen from the test results obtained in cycles I and II. In the implementation of the first cycle, the percentage of students whose scores have reached the Minimum Completeness Criteria (KKM) has increased. The increase in one cycle of students who achieved completeness was 18 people with a percentage of 54.5%, and 15 students still did not reach the KKM if the percentage was 45.5%. Furthermore, in the second cycle, students whose scores have reached the KKM reach 26 students or if the percentage is 78.8% who have completed and 7 students or 21.2% have not completed.

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