ICEE-2

Application of Mind Mapping Learning Models to Improve Students' Reading Skill in 4th Grade of Primary School

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Abstract . Data showed the existence of problems found in 4th grade during Indonesian Language learning in reading comprehension material. Reading comprehension aims to obtain information from the text. Problems are found in two important aspects of learning; teacher performance and student activities. The discovery of the problem is because the teacher uses a learning method that makes students less enthusiastic when delivering learning material. For this reason, classroom action research was conducted using a spiral model from Kemmis and Taggart. The corrective action taken is to apply the mind mapping learning model. Mind mapping is designed to help students to easily remember and understand the information that contained in the text. Preliminary data explained that 9 students completed learning or 33.33% of 27 students. The action is carried out in two cycles. It is because new targets are reached in the second cycle. From the results, we can concluded that mind mapping is able to improve student learning outcomes in reading material understanding in Indonesian language learning.

Keywords : Mind Mapping, Reading Comprehension, Learning Outcomes

INTRODUCTION ~ Language is an activity carried out by humans with other humans to communicate in their lives. The communication media used is language (Annisa, Saragih, & Mursid, 2019) . Language as a tool of social communication will not be separated from humans as speakers. In speaking languages, every human has a specific goal .

Learning to read in elementary school as expressed by (Djuanda, 2008) divided into two pieces or groups. For the low class the skills learned are beginning reading, while for the high class reading skills learned are reading comprehension. The purpose of reading in high class (Kartika, 2004) directed to how students can understand, interpret, appreciate, and respond to reading, can utilize the right reading comprehension strategy . Based on research, literacy culture in Indonesia is ranked second lowest from 61 countries studied (Rahman, 2018a) , because according to Kartika in (Yaumi, 2016), most Indonesian people have not made reading and writing as an important need , even though getting used to reading and writing from an early age can make a better generation to build a nation and country (Wandasari, 2017).

The problem that arises is that the teacher is less varied in design learning activity, in this case the learning model and method needs to be completed immediately. According to (Rahman, 2018c) that early age becomes an important period for the formation of student character or habits , because if it left behind, it will be bad for the quality of human resources in the future. Learning methods or models are less appropriate to

be applied in a class character can lead to a lack of successful reading learning (Rahman et al., 2018) . As a result, as happened in the subject of this study, students who have difficulty to understand reading. Students have difficulty in answering questions related to information in the text even though the information asked is clearly written in the text.

Given that reading skills are very fundamental skills for students in learning (Ariawan, Utami, & Rahman, 2018), also for humans in general in obtaining information (Mulyati, 2015), it can be presented several alternative problem solving to overcome the problems in the learning (Nirmala, Rahman, & Musthafa, 2018).

The first alternative solution is to design reading comprehension learning using the Jigsaw Cooperative learning model (Arjanggi & Setiowati, 2013), the second is designing reading comprehension learning using the *role playing* method (Kartini, 2007), and the third alternative is to design reading comprehension learning using the *Mind Mapping* learning model (Ristiasari, Priyono, & Sukaesih, 2012). Teachers are required to apply pleasant learning, teachers must be able to understand student learning styles of different individuals (Rahman, 2018b).

Based on the characteristics of the problems encountered, in this study we will use *mind mapping* learning models by developing indicators using Barret's taxonomy (Febriyanto, 2016). With this learning model, it is expected that students will more easily understand a text assisted also with the development of questions from reading comprehension indicators using the Barret taxonomy.

Mind map was chosen because the character of the problem faced corresponds to the advantages possessed by the mind mapping learning model as revealed by (Buzan & Buzan, 1993) that this Mind Mapping helps to realize the relationship between parts of information that are mutually exclusive and better memorise (Buzan, 2006).

Based On The Description, This Research Is A Study Using Classroom Action Research With The Title " Application Of Mind Mapping Learning Models To Improve Students' Reading Skill In 4th Grade Of Primary School".

METHOD

The research design used in this CAR is the Stephen Kemmis and Robbin Mc Taggart (Altrichter, Kemmis, McTaggart, and Zuber-Skerritt, 2002), to make it easily to understand the applications. This model is a development of the model introduced by Kurt Lewin. Components in one cycle include:

a. Planning (planning);

b. Action / action (acting);

c. Observation; and

d. Reflecting.

For more details how the steps of this cycle component can be seen in Figure 1 below (Aqib, 2009)

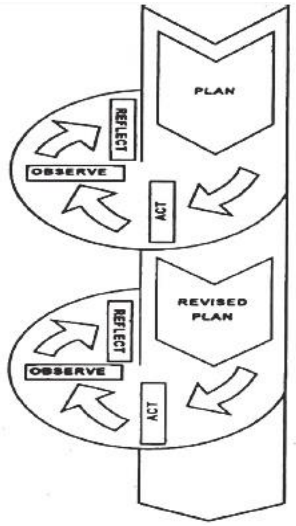

Figure 1. Model Kemmis and Mc Taggart

This research will be carried out for a minimum of three cycles. But if in less than or more of the planned cycle because the data is already saturated, then the cycle action is stopped, because in essence the cycle of action in this CAR is not limited in number. As a reference for the completion of this study is the level of success or at the point of the cycle to how much data is saturated. However, (Suharsimi & Suhardjono, 2006) said that in the Menpan and Bureaucratic Reform Decree mentioned, action research (Class Action Research, School Action Research, and School Action Research and Regions) was carried out at least two cycles (Arikunto, 2002)

The procedure for implementing CAR according to Taggart cited by (Aqib, 2009) is as follows.

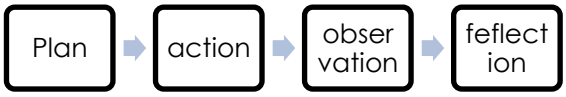

Figure 2 Procedure for Implementing CAR

The instruments used for data collection in this study are product assessment, observation sheets, and field notes.

Product evaluation according to (Abidin, 2015) explains that product valuation is an assessment carried out on various products produced by students during the learning process with the intended product in the form of writing (writing) in various genres, simple technological tools made by students, images or posters, paintings, maps with various media and various other products that depend on the learning objectives set by the teacher (Rahman,

2018d). Assessment product is used as an instrument for collecting data because the ability to read students' understanding can be measured by assessing the product in the form of writing summarizing the text and mind maps made by students.

(Sugiyono, 2008) said that the observation sheet is a data collection tool used by researchers to see the findings during the learning process carried out. The observation sheet is used to assess the activities of students during the learning process and teacher activities that are used to assess the teacher's ability to carry out learning.

Field notes are used by researchers to record events in learning.

(Alam, 2008) argued that the data obtained in the CAR research was analyzed through qualitative descriptions. Data analysis was performed on each data collected, both quantitative data and qualitative data. In this regard, there are two kinds of data analysis in this study, namely quantitative data analysis and qualitative data analysis. Quantitative data is obtained based on the products of students in each lesson (Hayati, Budi, & Handoko, 2015). Improvement of learning outcomes can be seen based on the increase in the scores of students individually and the class' average. Whereas, qualitative data is data collected to describe learning. Qualitative data collected in the form of data about teacher activities and student activities during learning and student response after learning is carried out (Sanjaya, 2016).

The qualitative data analysis model used in this study is the Hopkins model in (Alam, 2008) that in analyzing CAR data several steps are needed, namely:

Data categorization is data obtained by researchers when the research takes place from all instruments collecting data arranged into certain categories to facilitate analysis, namely about understanding tests (concepts, processes, and application concepts).

The data obtained are objective, valid, and reliable, so triangulation and saturation techniques are carried out by taking several actions (Hanifah, 2014), among others:

a. Use various methods to obtain the same data.
b. Dig the same data from different sources.
c. Do a re-check of the data that has been collected for completeness.
d. Perform reprocessing and analysis of collected data.

Considering the opinions of the experts involved here are supervisors and citations from various literature related to research data.

Interpretation of prepared data is interpreted based on agreed theories or rules or the intuition of researchers and teachers to create conducive learning as a reference in carrying out further actions.

The action is the result of the interpretation of the data used for information in

preparing the next action plan (Wibawa, 2003).

RESULTS AND DISCUSSION

Here are the results of the application of mind mapping learning model to improve the reading skills of students in 4th grade primary school for two cycles.

Table 1. Recapitulation table of student performance results

Cycle	Average value	Student completeness	
		Completed (%)	Not complete (%)
I	78.59	62.96%	37.04%
II	91.77	88.89%	11.11%

Mind Mapping according to (Lestari, 2018) is a creative note-taking method that makes it easy to remember a lot of information. Mind Map is a great route map for memory, allowing us to arrange facts and thoughts in such a way that the natural workings of the brain are involved from the start. Thus, remembering information will be easier and more reliable than using traditional recording techniques (Buzan, 2007) meanwhile according to Doni in (Agustina, 2015)mind mapping is a technique of utilizing the whole brain by using visual methods and other graphic infrastructure to form an impression (Nurafifaeni, Triyanto, & Chrisnawati, 2018).

Mind Mapping according to (Buzan, 2006) very helpful in various ways, including the following.

1. Plan
2. Communicate
3. Become more creative
4. Saving time
5. Solve the problem
6. Focus
7. Arrange and explain thoughts
8. Learn faster and more efficiently
9. Remember better
10. See "whole picture"

Whereas according to Michalko in (Agustina, 2015) states that the benefits of mind mapping learning models are as follows.

1. Activating the whole brain
2. Allows us to focus on the subject
3. Helps realize the relationship between separate pieces of information
4. Give a clear picture of overall and detailed
5. Helps in grouping concepts and comparing them.

The learning step by using mind mapping learning models according to Silberman in (Agustina, 2015), mind mapping procedures are five, as follows.

1. Choose a topic for mind mapping. Some possibilities include:
   a. A problem or issue that is presented so that students make a picture of its handling;
   b. A concept or skill that the teacher has taught;

c. A task that must be planned for completion by students.

2. Make a simple mind map for students using colors, pictures, or markers.
3. Provide paper, markers, and other source material that can help students create vibrant and bright maps of mind.
4. Provide plenty of time for students to compile their mind maps. Suggest to students to see the work of other students to get ideas.
5. Instruct students to tell each other about their mind maps.

Meanwhile, six steps mind mapping learning model according to (Rahman, 2017) is as follows.

1. The teacher expresses the competencies that students achieve;
2. The teacher presents problems that must be addressed by students. Problems must have alternative answers;
3. The teacher forms a group of students with 2-3 members
4. Each group makes alternative answers;
5. Each group reads the results of the discussion and the teacher records on the board and groups according to needs; and
6. Notes on the board are made conclusions or the teacher compares according to the concept provided by the teacher.

Based on the two exposure steps of the Mind Mapping learning model above, then in this study the steps of the learning model will be used as follows.

1. The teacher conveys the competencies want to be achieved;
2. The teacher presents material in the form of historical narrative texts;
3. Students are divided into groups. Each group has 2-3 members;
4. The teacher directs students to read the text and identify the character, time, place, and cause of the event that occurred from the text;
5. The teacher directs one group to read the results of the group work and the teacher records the results of the group discussion on the board in the form of mind mapping;
6. Notes on the board are made conclusions or the teacher compares according to the concept provided by the teacher;
7. The teacher directs students to identify the main ideas contained in the text written in the mind map;
8. The teacher directs students to identify information contained in the text written in the mind map;

CONCLUSION

Based on the results of research on fourth grade students on reading comprehension learning material by applying the mindmapping learning model obtained conclusions of teacher performance on implementation, as well as activities and learning outcomes of students.

In the implementation of reading comprehension learning by applying mind mapping learning models, the researcher as the teacher adjusts the implementation of learning in each cycle with the planning that has been made with the changes in the planning that are adjusted to the results of the analysis and reflection of the previous cycle. Based on the observer's assessment of the teacher's performance in the implementation of reading comprehension learning by applying the mind mapping learning model from one cycle to the next it is always increasing. This increase is in line with the improvements made by the teacher. The percentage assessment of teacher performance at the stage of implementation of learning in cycle 1 was 84.4%. These results increased in cycle 2, the percentage was 89%.

The activity of students in the learning process of reading comprehension by applying mind mapping learning models from one cycle to the next cycle has increased in the assessment of students who have good criteria (A). It is known in cycle 1, the percentage of activity of class IV students is 78.18%. In cycle 2 the percentage is 91.77%.

Learning outcomes of students in reading comprehension learning by applying mind mapping learning models were declared successful with an increase in students who completed learning in one cycle to the next cycle. Achievement of student learning outcomes in cycle 1 the percentage that completes is 62.96%. In cycle 2 the percentage that completes increases 88.89%. At the percentage of learning outcomes of the second cycle students have exceeded the target specified in this study which is 80%.

Considering and paying attention to the data collected in the two cycles of class action research, it conclude that this mind mapping learning model has improved the comprehension reading skills of fourth grade students.

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