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INCREASING STUDENT LEARNING OUTCOMES IN SOCIOLOGY THROUGH MIND MAPPING METHOD

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Abstract

This study aimed to investigate the impact of the Mind Mapping approach on the learning outcomes of seventh-grade students at SMP Negeri 8 SBI Yogyakarta throughout the 2020/2021 academic year. This is a pre-experimental study with a One-Group Pretest-Posttest Design. Using observation, tests, and documentation to collect data. The data analysis process involved descriptive and inferential analysis. The participants in this study were seventh-grade SMP Negeri 8 SBI Yogyakarta students. The results indicated that the learning outcomes of seventh-grade students prior to utilizing the Mind Mapping approach were 66 and after using the Mind Mapping method they were 81,2. This figure demonstrates that the Mind Mapping approach has an effect on the learning outcomes of seventh-grade Sociology students at SMP Negeri 8 SBI Yogyakarta, and the results of the hypothesis test (t-test) indicate a significance level of 0.000; therefore, hypothesis h1 is accepted. On the basis of the foregoing research findings, it can be concluded that the Mind Mapping approach has an effect on the learning outcomes of Sociology students in seventh grade at SMP Negeri 8 SBI Yogyakarta.

Keywords: *Mind Mapping Method, Learning Outcomes, Sociology*

1. INTRODUCTION

Education is fundamental to human life. Without education, humans will not develop in all aspects of their lives. Therefore, education must be considered and managed seriously. Throughout human history, nearly no group of people has not used education as a means of civilizing and bettering its society (Sanaky, 2003).

Talking about learning is basically talking about human activities in this life, where there is life there is a learning event on the contrary. Learning events appear simultaneously with the presence of humans on this earth. Learning is a person's activity in order to have competence in the form of the necessary skills and knowledge. Learning is seen as an elaboration process in an effort to find meaning by individuals. The learning process is basically done to improve abilities (Asrianti, 2018).

Based on the book written by Prof. Dr. Damsar entitled "Introduction to the sociology of education", it can be concluded that the subject of Sociology has many issues, both coming from teachers and from students. Generally, in Sociology subjects, there are many methods that are less effective in the learning process, with such an atmosphere the Sociology subjects appear quiet and dead, this is because students feel bored and bored (Damsar, 2011).

The saturation of students in learning is generally caused by learning that is less interesting. One of the causes of the lack of interest in learning is the lack of effectiveness in the application of a learning method delivered by educators. As a result, students become bored and bored to study Sociology subjects.

The results of observations that have been made at SMP Negeri 8 SBI Yogyakarta, especially on 7th grade, the subject of Sociology is one of the subjects that must be taken by competency students at SMP Negeri 8 SBI Yogyakarta. The learning process of Sociology subjects at SMP Negeri 8 SBI Yogyakarta has many obstacles, both internal and external factors. Internal factors occur within the students themselves including the willingness and curiosity about Sociology subjects that are still low, many students do not pay attention to the material presented by the teacher, student learning participation is relatively low, many students do not want to take notes about learning material delivered by the teacher. Meanwhile, external factors include the lack of supporting facilities in the form of facilities in the Sociology learning process, limited Sociology textbooks that can be used and borrowed by students, Sociology textbooks are only used by teachers who teach, teaching aids are inadequate, productive learning time/practice Sociology carried out at noon or the last lesson resulted in students being tired and sleepy in the learning process, and the learning process did not use media but only the teacher who lectured in front of the class and students listened.

Based on the aforementioned issues, the Sociology learning process at SMP Negeri 8 SBI Yogyakarta did not go well or ideally, resulting in low and inconsistent student learning outcomes in Sociology subjects at SMP Negeri 8 SBI Yogyakarta. This can be seen from the saturation of students in learning in general caused by learning that is less interesting. The boredom that is also seen in students can also arise because they feel that the Sociology subject is not too important. The students also underestimated the Sociology subject, they considered that they could already use the Sociology subject, because they considered it to have been applied in their daily lives.

One of the learning methods that are considered accommodative can increase the activity and creativity of students, the ability to cooperate between students and the learning achievement of students is to use the Mind Mapping learning method. Mind Mapping is information into the brain and taking information out of the brain by taking notes that are creative, effective, and literally will map to the mind, using curved lines, symbols, words and pictures that conform to a set of simple, basic, rules. natural, and in accordance with how the brain works (Buzan, 2012).

Based on the aforementioned concerns, the goal of this study was to investigate the impact of adopting the Mind Mapping approach on the learning outcomes of seventh-grade students at SMP Negeri 8 SBI Yogyakarta during the academic year of 2020-2021.

2. LITERATURE REVIEW

2.1. Learning methods

According to Sudrajat (2008) Learning methods can be interpreted “as a method used to implement plans that have been prepared in the form of real and practical activities to achieve learning objectives”. Ningsih (2016) The strategy is the method utilized to apply the prepared plans in actual actions so that the established objectives are optimally attained. In order for the learning process to be carried out best, the teaching methods employed by teachers must be founded on pertinent considerations.

2.2. Mind Mapping

Mind mapping is a strategy for summarizing the content to be studied and displaying the challenges found in a map or visual format to make them easier to comprehend (Sugiarto (2011) in Darusman (2014)). Buzan (2012) defines Mind Map as "a creative, effective, and literally way of taking notes that will map our thoughts". Mind Mapping allows students to take notes not only with writing, but can use pictures, colors, symbols, lines that can increase creativity. De Porter & Hernacki (2000) argues that the benefit of Mind Mapping is that it is flexible ie if a speaker suddenly remembers to explain something about a thought, then it can easily add it in the appropriate place in the mind map without having to get confused. Then it can focus students' attention, on the other hand, if they can concentrate on their ideas. Besides, it can increase understanding and provide meaningful review later. Furthermore, this method makes the teaching and learning process fun, imagination and creativity are not limited. It makes creating and reviewing notes even more fun.

2.3. Learning Outcomes

Sudrajat (2008) revealed that "student learning outcomes are essentially changes in behavior that include cognitive, affective and psychomotor aspects". According to Gagne in Ningsih (2016), learning outcomes are "the results of the teaching and learning process achieved by students in mastering the material that has been taught". The categories of learning outcomes are subdivided into the cognitive, affective, and psychomotor domains, with each domain containing a number of interconnected components. In addition, the scope of assessment instruments for each domain varies. Consequently, the assessment of student learning outcomes encompasses not just the amount of mastery of school-learned content, but also the attitudes and skills of each student. In this study, learning results are restricted to the cognitive domain exclusively. According to Slameto in Hapnita (2018), the elements that influence learning are many, but may be divided into two categories: internal and external. Internal factors are those that exist within the learner, whereas external factors are those that are outside of the learner.

2.4. Sociology

In terms of sociology from Latin and Greek, namely the words socius and logos. socius (Greek) which means friend, friend or community. Logos which means knowledge or can also talk about something. Meanwhile, according to Weber (2013) in the book (Introduction to Sociology: 3) reveals that sociology is the study of social action. An action can be called a social action if the action is carried out with consideration of the behavior of others. Brinkerhoft and White in Chamidi et al. (2022) argues that the scientific study of society as a whole is known as sociology. The focus is on the formation, maintenance, and transformation of interpersonal relationships and patterns.

3. RESEARCH METHODS

This study falls under the category of quantitative research because the data analysis is statistical or employs numbers. Experimental research was utilized for this study. In this study, the researcher employed a pre-experimental design utilizing a One-Group Pretest-Posttest Design. This design was implemented twice to assess the sociology learning outcomes of seventh-grade SMP Negeri 8 SBI Yogyakarta students. The first

measurement (pretest) was conducted to determine the condition of the sample prior to treatment (i.e., the learning outcomes of Sociology in class VII prior to using the Mind Mapping method), and the second measurement (posttest) was conducted to determine the learning outcomes of Sociology in class VII after using the Mind Mapping method. The population of this study consisted of 25 seventh-grade students at SMP Negeri 8 SBI Yogyakarta during the 2020/21 academic year. This study's sample technique is a saturation sampling technique. This study's sample is the full population employed as a sample, which consists of 25 seventh-grade pupils. This study included observation, tests, and documentation to acquire data. The acquired data will be statistically evaluated with descriptive and inferential statistics using version 20 of SPSS for Windows. In this study, the One Group Pre-Test Post-Test Design is described as follows:

Table 1. One Group Pretest-Post-test Design

Pre test	Treatment	Post test
O1	X	O2

Source: (Sugiyono, 2017)

Information:
O1 = Observation of learning outcomes before giving treatment in the form of using the Mind Mapping method.
X = Treatment (using Mind Mapping method)
O2 = Observation of learning outcomes after being given treatment in the form of using the Mind Mapping method.

4. RESULTS AND DISCUSSION

4.1. Research Result

4.1.1.Descriptive Statistics

1) Level of Student Sociology Learning Outcomes Before and After Treatment

To provide an initial description of the learning outcomes of 7th grade students of Sociology who were selected as research subjects, the following statistics are presented on the scores of students' pre-test and post-test scores of Sociology.

Table 2. Statistics of Sociology Learning Outcomes

	Statistics							
	N	**Max**	**Min**	**Range**	**Mean**	**Median**	**Standard Deviation**	**Sum**
Statistical Value *Pre-Test*	25	90	20	70	66	60	18.25	1650
Statistical Value *Post-Test*	25	100	40	60	81.2	80	15.36	2030

Source: Data processed, 2022

According to table 2, the pre-test yielded an average value (mean) of 66 out of a total value of 1650, with a standard deviation of 18.25. This may be deduced by looking at the distribution of the values. According to table 1, the post-test yielded an average value (mean) of 81.2 out of a total value of 2030, with a standard deviation of 15.36. This can be observed when comparing the mean to the total value. According to the data presented in table 1, which can be found above, the average score (mean) achieved by students after the Mind Mapping approach was adopted (Posttest) was higher, coming in at 81.2, than their score prior to receiving treatment (Pre-test), which was 66.

Table 3. Frequency Distribution of Pre-test Values of Research Subjects

Interval	Category	Pre-Test Score		Post-Test Score	
		Frequency	Percentage	Frequency	Percentage
90-100	Very high	4	16%	12	48%
80-89	High	6	24%	4	16%
65-79	Medium	2	8%	6	24%
55-64	Low	7	28%	2	8%
0-54	Very low	6	24%	1	4%
Total		**25**	**100%**	**25**	**100%**

Source: Data processed, 2022

Based on table 3, it can be seen that of the 25 research respondents at the time of the pre-test it was known that there were 6 peoples or 24% who were in the very low learning outcome category, 7 peoples or 28% were in the low category, 2 other peoples or about 8% were in the medium category, and 6 peoples or about 24% were in the high category, and in the very high category there were 4 people or about 16%. Based on table 2, it is clear that of the 25 research respondents at the time of the post-test it was known that there was 1 person or 4% who were in the very low category, 2 peoples or 8% who were in the low category, 6 people or 24% were in the low category, 4 peoples or about 16% were in the high category, and about 12 people or 48% were in the very high category.

Furthermore, to see the percentage of students' completeness in learning Sociology before treatment (Pre-test) and after treatment (Post-test) can be seen in table 4 below.

Table 4. Description of Sociology Learning Completion

Score	Category	*Pre-test*		*Post-test*	
		Frequency	Percentage	Frequency	Percentage
70 - 100	Complete	12	48%	22	88%
0 - 69	Incomplete	13	52%	3	12%
Total		**25**	**100%**	**25**	**100%**

Source: Data processed, 2022

Based on table 4 above for the completeness value of student learning outcomes before being given treatment (Pre-test) it can be described that only 12 students or 48% of the total 25 students were able to achieve complete scores, while those who did not achieve learning mastery were as many as 13 people out of a total of 25 students with a percentage of 52%. Based on table 3 above, for the completeness value of student learning outcomes after being given treatment (Posttest) it can be described that as many as 22 students or 88% of the total 25 students who were able to achieve complete scores, while

those who did not achieve learning completeness were 3 students from a total of 25 students with a percentage of 12%. The difference in student mastery before treatment (Pre-test) was 12 students who completed or 48% of the total 25 students and after being given treatment (Posttest) the number of students who completed increased by 22 students from 25 students or 88%. Thus, the learning outcomes of class VII students of SMP Negeri 8 SBI Yogyakarta have increased after being given treatment using the Mind Mapping method.

4.1.2. Statistical Analysis Results

1) Normality Test

Normality test is used to determine whether the data collected is normally distributed or not. The criteria used are that the data is said to be normal if the significance or coefficient value (P-Value) at the output of One Sample Kolmogorov-Smirnov is greater than the specified alpha, which is 0,05 (P_{value} 0,05).

Table 5. Normality Test Results of Pre-test and Post-test Values of Research Subjects

One-Sample Kolmogorov-Smirnov Test

		Pre-Test	**Posttest**
N		25	25
Normal Parameters,[b]	Mean	66.0000	81.2000
	Std. Deviation	18.25742	15.36229
Most Extreme Differences	Absolute	.178	.197
	Positive	.149	.127
	Negative	-178	-197
Kolmogorov-Smirnov Z		.892	.983
asymp. Sig. (2-tailed)		.404	.289

a. Test distribution is Normal.

Based on the normality test table, it shows that the significance (p) for the research subjects the value before treatment/pre-test and after treatment/Post-test is greater than 0,05 which means the data is normally distributed.

2) Homogeneity Test

The homogeneity test is used to examine whether or not certain data population variants are same. Using the test criteria, if the significance value is larger than 0,05, it is possible to conclude that the variances of the two data sets are same. The results of the homogeneity test are listed in the table that follows.

Table 6. Homogeneity Test Results of Research Subjects

Levene Statistics	**df1**	**df2**	**Sig.**
.975	1	48	.328

The significance value for the homogeneity test, as determined by the aforementioned homogeneity test findings, is 0,328. Due to the fact that the significant value is greater than 0,05, it may be stated that the pre-test and post-test scores have the same or identical varian.

3) Hypothesis testing

The t-test was utilized in this study to assess hypotheses. The next step, hypothesis testing/t-test, is dependent on the results of the preceding prerequisite test, which demonstrated that the data is normally distributed and homogeneous. The purpose of testing a hypothesis is to establish if it can be accepted or rejected. The criteria for making a decision include If Sig. ≥ 0,05, H_0 is accepted and H_1 is rejected, but if Sig. > 0,05, H_0 is rejected and H_1 is accepted. The outcomes of hypothesis testing are shown in the table below.

Table 7. Hypothesis Test Results

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair Pre_Test - 1 Post_Test	1,520,000	1,004,988	200,998	-1,934,838	-1,105,162	-7.56	24	.001

4.2. Discussion

Based on the results of the hypothesis test above, it can be seen that the significance value is 0,000. Because the significance value is less than 0,05 (Sig. < 0,05 = 0,000 < 0,05) then H_1: "There is an effect of the Mind Mapping method on Sociology learning outcomes in seventh grade students of SD Negeri Tegalrejo I Yogyakarta" is accepted and H_0 rejected.

Often encountered a habit in learning sociology, namely learning sociology is still conventional where the teacher lectures and students just sit, listen to lectures or explanations of material from the teacher, have not used learning media, and note-taking activities are carried out normally which seems linear and monotonous. This makes students feel bored, bored, and reduced enthusiasm for learning. Sociology learning should be a learning that can attract students' attention, be fun, and be able to actively involve students in learning. To improve students' learning outcomes of Sociology, the Mind Mapping method was applied. When students are able to make notes in the form of Mind Mapping and can answer questions well, it means that it reflects the student's ability to master and understand sociology learning materials, namely the cultural diversity found in Indonesia.

The results of the study including the use of the Mind Mapping approach revealed that the learning outcomes of students improved after receiving treatment. In accordance with the findings of research and data analysis, a comparison of values reveals that the Pre-test scores are still relatively low, however the Post-test scores have grown after treatment with the Mind Mapping method. Moreover, based on the findings of the SPSS hypothesis test, H_0 is rejected and H_1 is accepted. Hence, it can be concluded that the Mind Mapping learning approach has an effect on the sociology learning outcomes of seventh-grade SMP Negeri 8 SBI Yogyakarta students, and that student learning outcomes have enhanced after receiving treatment.

The results of this study are supported by research of Mehakati (2017); Nugraha (2018); Nursoviani et al. (2019). The results of this study are also in line with research Nugraha (2018) which shows that the teacher has a solid grasp of the Mind Mapping

learning model scheme and is able to effectively put it into practice. Students of X class IPA 4 are able to comprehend the Mind Mapping learning model, and it has been demonstrated that the learning model is able to improve the students' understanding of the subject matter in the course of cross-interest sociology. This was demonstrated by the increasing results of tests that were carried out progressively, which were carried out between the months of January and April 2018. In the pre-action stage, after applying the learning model and doing tests, class X IPA 4 students obtained learning outcomes with 24,13% increasing in cycle 1 reaching 44,82%, until the increase reached indicators in cycle 2 are 79,31%.

5. CONCLUSION

The findings of the research and analysis of the data show that the average value (mean) of student learning outcomes before they were given treatment is 66, but the average value of learning outcomes after they were given treatment is 81.2. This demonstrates that there is an improvement in the learning outcomes in sociology after treatment has been administered. The results of the SPSS output hypothesis test indicate that h0 should be rejected and H1 should be accepted. This indicates that the application of the Mind Mapping method can affect and improve student learning outcomes in the Sociology subject that is being taught to students in Class VII at SMP Negeri 8 SBI Yogyakarta. Hence, it is advised that in the process of teaching the subject matter in particular, a teacher should be able to select the appropriate learning model. Students need to be motivated to participate more actively in the various teaching and learning activities in order for students' learning to be effective. The selection of the appropriate learning model can have an effect on the level of success achieved in the process of teaching and learning. It is intended that by using the Mind Mapping approach, students will be more engaged, enthusiastic, and interested in participating in the teaching and learning process. The level of interest that students have in the process of learning can have an effect on the consequences of that learning for those individuals.

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