

THE EFFECT OF MIND MAPPING LEARNING STRATEGY TO STUDENTS' LEARNING RESULT ON EXCRETORY SYSTEM MATERIAL AT XI CLASS

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ABSTRACT

This study aims to determine the effect of mind mapping learning strategy on student learning outcomes on excretory system material in XI Science class. The research method used in this research is quasi experimental method with design non - randomized Control Group Pretest-Posttest Design . The population in this study includes all XI science class in senior high school which amounts to 60 students. The sampling technique used sampling saturated with class XI Science 1 which amounted to 30 students as experimental class and class XI Science 2 which amounted to 30 students as control class. The instrument used in this research is written test in the form of pretest and posttest to measure student learning result cognitively. The first stage data analysis of the average value of pretest in experimental class is 47.50 while the control class is 49.50. After applying the mind mapping strategy , the average grade of post experiment class increased with the average value of 83.33 which is very good while the mean score of posttest of control class is 73,2 which is good. The calculation results are known that there is influence a significant application of mind mapping learning strategy to student learning outcomes.

Keywords: *learning, mind mapping, result study, excretory system*

INTRODUCTION

The learning process that occurs in the classroom is implemented in accordance with the ability and taste of teachers. In fact the ability of educators in the management of learning is univen in accordance with educational background, educators and educators love their profession. There are educators who are in carrying out the learning management is done seriously through careful planning, by utilizing all available resources and taking into account the level of intellectual development and the development of student psychology. Such educators will be able to produce higher quality graduates compared to educators who in their learning management are done sober without considering the factors that can influence the success of the learning process (Hamdayama, 2016) .

The material used in this research is the material of excretion system. Based on the results of interviews and observations pre-research, that in the delivery of learning so far less involving students. So far the students only accept what the teacher gives. On the other hand, the material of this excretory system has the characteristics of linkage of gin jal, liver, lung and skin functions. Other materials on themechanisms of urine formation, abnormalities in the excretory system , and animal excretion systems with respect to the characteristics of the material .

In the learning process, especially the material of excretion system should be used various learning strategies such as mind mapping learning strategy that can make students active and expected to improve student learning outcomes . Excretory system material can achieve a minimum completeness criteria established school. Mind mapping is a mind mapping term to help unlock the potential and capacity of the brain that is still "hidden" (Hamdayama, 2016). Strategy can help us remember the words and reading, improve their

understanding of the material, helping organize the material, and provide new in sights for in it contains key words in a topic (Kusmintayu et al., 2012).

RESEARCH METHOD

The research method used is quasi-experimental method with non - randomized control group Pretest-Posttest Design . Subjects in this study were 60 students of XI class in one school at Palembang. The mind mapping learning strategy aims to unlock the potential of the brain by using letters, drawings, colors, line funds. Students are asked to discuss with their group of 5-6 students who aim to develop students' high-order thinking skills. Technique data collection used is written test (pretest - posttest). Data were analyzed using SPSS 16.0 program. Some research on mind mapping learning strategy that the average learning outcomes of students using mind mapping learning strategies are higher than those taught by the usual method.

RESULT AND DISCUSSION

Statistical data shows pretest, posttest, and mean value of N- gain mastery of student concept after applying mind mapping strategy can be seen in Table 1.

Table 1. The Statistic Data of Mastering Concept

Statistic Data	Score	
	Pretest	Posttest
Average	47,50	83,33
Varians	66,810	60,920
Min. Score	30	70
Max. Score	60	95

Table 1 presents data statistic of pretest learning result in averaging 47.50, posttest 83.33; varians 66,810 and 60,920; the lowest values are 30 and 70 ; as well as value maximum 60 and 95. Based on Table 1 shows improvement of student learning outcomes after applying mind mapping learning strategy. Once analyzed, the average N- gain in experiment class is 0.68. The N - Gain values is 0.46 in control class. The value of N-Gain experiment class is known that the value of ≥ 0.68 included in the medium category. N gain in control class is known that the value of ≥ 0.46 g medium category. This shows that the increase in learning outcomes in the experimental class is better than the control class (Sukardi, 2003) . This is in accordance with the findings of relevant research results on theN-gain test . It is known that the increase of student learning outcomes in the experimental class is 0,53 or increase in the moderate category, and in the control class increases 0,30 also in the medium category.

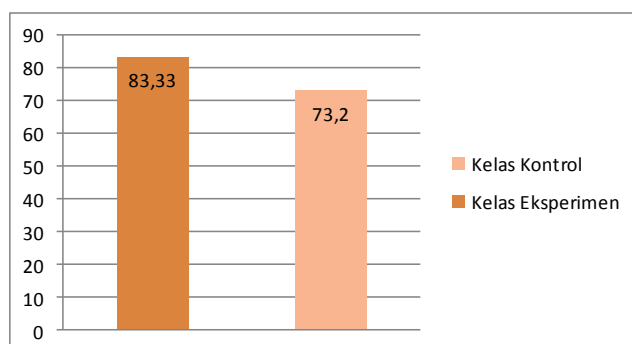


Figure 1. The Graph of Student Learning Outcomes at Experiment and Control Class

Based on the picture above can be said that the learning outcomes in the experimental class is better than the control class. Homogeneity test is necessary to prove the basic data to be processed is homogeneous, so that all forms of proof describe the real, not influenced by the variance contained in the data to be processed (Yusuf, 2015) . Based on the test result shown on the output of SPSS on table coef ficients known value of t equal to 8,561 with significant value equal to 0,000 (meaning its significant value

< 0,05). It concluded H_0 rejected and H_a accepted . It also means that there is a significant influence on the implementation of mind mapping learning strategy to student learning outcomes.

CONCLUSION

Learning by using mind mapping learning strategy is very influential to improve student learning outcomes, especially on the material excretion system. Mind mapping helps to unlock the full potential and capacity of the brain. This strategy can help students remember words and readings, as well as improve understanding of the material. It helps organize the material and provides new insights because it contains key words in a topic.

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