

**THE EFFECT OF COOPERATIVE LEARNING TYPE TGT USING CONCEPT  
MAPS TOWARDS STUDENTS' LEARNING OUTCOMES ON FLUID  
DYNAMICS TOPIC GRADE XI SMA NEGERI 5  
BINJAI A.Y. 2012/2013**

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**ABSTRACT**

The purpose of this research is to know the effect of cooperative learning type TGT using concept maps towards students' learning outcomes on fluid dynamics topic grade XI semester II SMA Negeri 5 Binjai A.Y. 2012/2013. The type of research is quasi experimental research. The population is all students of class XI IPA SMA Negeri 5 Binjai Academic Year 2012/2013, consist of four classes. Two classes is selected randomly as sample. One class as experiment class treatment using cooperative learning type TGT using concept maps and another class as control class using direct instruction. Instruments that used as learning result test, namely objective test as big as twenty items that contains of five options and already valid. The result of quantitative analysis of posttest average in experimental class is seventy five point six three and control class is sixty five point four. Data is tested is normal distribution and homogeny. To do hypothesis test used with t one tailed. Testing criteria is  $H_0$  is accepted if  $t_{count}$  between minus two point zero one three and two point zero one three. Because the research obtained  $t_{count}$  as three point one five three so  $H_0$  is rejected and  $H_a$  is accepted. The average of affective and psychomotor in experimental class is higher than in control class. The research also is obtained the average of learning activities on the whole meeting in experimental class is include to good category. While the average of learning activities on whole meeting in control class include to enough categories. This case means there are differences of students' learning outcomes caused by effects of cooperative learning type TGT using concept maps on fluid dynamics topic grade XI semester II SMA Negeri 5 Binjai A.Y. 2012/2013.