

**THE IMPLEMENTATION OF CONTEXTUAL TEACHING AND  
LEARNING USING CONCEPT MAP ON THE  
TEACHING ACID BASE TOPIC**

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**ABSTRACT**

This thesis purposes the implementation of Contextual Teaching and Learning using concept map on the teaching acid base topic. The objectives of research are to determine the difference of student's outcomes in acid base topic by CTL using concept map compared to conventional model and to determine the influence the student's outcome of CTL using concept map in learning acid base topic. The population of this research were all of students in grade XI, 2<sup>nd</sup> semester and academic year 2015/2016 in Indonesia. The samples are 2 classes from student in SMA N 11 Medan by purposive random sampling method. The experimental class is learned by CTL using concept map and control class is learned by conventional model. The instruments are using multiple choice test to see the student's outcome. The instrument of research is standardized by expert validator and empiric validity. Data analysis is using manual calculation. The result of test is standardized and there are 21 items valid with reliability is 0.90474. The result data shows that the student's outcome taught by CTL using concept map give higher significant difference than taught by conventional model. It can be seen from the average of gain and also proved with z-test, the normalized gain in experimental class ( $0.6388 \pm 0.1495$ ) and control class ( $0.1958 \pm 0.1269$ ). The statement support the research data result of hypothesis test is  $z_{count} = 14.2995$  and  $z_{table} = 1.645$ . The calculation shows that  $H_a$  is received or  $H_0$  is rejected.  $H_a$  is student's outcomes through Contextual Teaching and Learning used concept map media is higher than using conventional method in acid base topic, and  $H_0$  is student's outcomes through Contextual Teaching and Learning used concept map media is less than using conventional method in acid base topic.

*Keywords : CTL, Concept Map, Conventional, Student's Outcome, Acid Base*

