THE EFFECTIVENESS OF PROBLEM BASED LEARNING MODEL USING CONCEPT MAP ON THE TEACHING SALT HYDROLYSIS TOPIC

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ABSTRACT

The effectiveness of problem based learning model using concept map on the teaching salt hydrolysis topic is explained. The aim of this research, the first is sto determine differences student's achievement in chemistry lessons delivered hydrolysis is using PBL as compared to conventional methods, and the second is to determine the effectiveness of PBL using concept maps media in student performance on the teaching salt hydrolysis. This research was done in SMA N 1 Sumbul on second semester. The population was all of the students in grade XI at the second semester academic year 2015/2016. The class divide into two classes; experiment class and the control class. Instrument that used is validated 20 multiple choice questions by empirical validity and construct validity and all question are reliable. The reliability is r_{count} is $0.85457 > r_{table}$ is 0.320. The first time, same pretest is given to both of class. In experiment class was used problem based learning model using concept map and in control class was used conventional model. The last, same post-test is given for each of class after teaching treatment. Test result stated that the sample is ditributed normally and homogenity. Based on the result, the post-test of experiment class (85 ± 8.84) is higher than control class (64.25 ± 10.34). The normalized gain experiment class is 0.7878 ± 0.11 higher than control class 0.4923 ± 0.13. The hypothesis testing show that value of z_{count} (10.201) while z_{table} (1.645), $z_{count} > z_{table}$ so H_a is accepted and H_0 is refused. It proved that student's acheivement was taught by PBL model using concept map is higher than conventional model. And the effectiveness of Problem Based learning model using cocept map in salt hydrolysis topic is 37.50%.

Keyword: *Effectiveness, Problem based learning, concept map, student's acheivement*