

The Development of Innovative Learning Module on the Teaching of Acid and Base Based On Curriculum 2013

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Abstract

The objective of this research is to know the effectiveness of innovative learning module and it can increase student's achievement on the teaching of Acid and Base Solution. This research is a type of *Research and Development* (R & D), the research that is used to produce instructional design, and test the effectiveness of the product. Population in this research consisted of all students in North Sumatera. Samples are students Grade XI in MAN 1 Medan, MAN 2 Model Medan, and SMAN 1 Perbaungan. The samples are selected by pretest to divide class into two, namely experiment class that used innovative learning module and another class namely control class that used their textbook in learning process and then every class grouped based on their achievement in pretest to categorized the relative high achievement and low achievement. The instrument that used is evaluation test and a set of standard questionnaire. The product in this research is innovative chemistry learning module that had been standardized by lectures, teachers, and students. The average of questionnaire is 3.52, so it is valid. The data result are distributed normally and homogeny and can increase students achievement that seen in increasing value of posttest-1 in experiment class in high group (77.500 ± 6.960) and low group (75.167 ± 5.212) and in control class in high group (74.000 ± 7.037) and low group (70.000 ± 8.015) that is higher than pretest value. The effectiveness of innovative chemistry learning module can seen in posttest-2 in experiment class in high group (81.167 ± 6.490) and low group (77.167 ± 6.816) and in control class in high group (74.500 ± 6.510) and low group (72.000 ± 7.173). The average increase of student's achievement percentage of high group which is given chemistry module is 35.095% while in low group is 61.025%.

Keyword: innovative learning module, acid and base, student's achievement, effectivity