THE DEVELOPMENT OF INNOVATIVE LEARNING MODULE ON THE TEACHING OF ACID-BASE TITRATION BASED ON CURRICULUM 2013

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ABSTRACT

This research was aim to know the effectivity of innovative learning module on the teaching of acid – base titration based on curriculum 2013. It was essential to develop the standard and good innovative larning module based on curriculum 2013 that have been effective to improve student's achievement and can meet the requirement on student's competence in curriculum 2013. The sample in this research were chemistry textbook grade XI, chemistry lecturers of FMIPA UNIMED, chemistry teachers, and students grade XI in MAN 2 Model Medan, students grade XI in MAN 1 Medan, and students in SMAN 5 Binjai at even semester in academic year 2014/2015 that selected by purposive sampling. It was started from analyzed four bilingual chemistry textbooks then developed become innovative laerning module that had standarized by lecturers, teachers, and students in MAN 2 Model Medan and then conducted trial of module to the students. The instrument that wa used is questionnaire and 20 multiple choice test that had been valid and reliable. The normality test and then the homogeneity test shown that in experiment class and control class for data pretest, post-test 1, and post-test 2 is normal distribution and homogeneous. The result of this treatment can improve student's achievement by looking the average of high group in experiment class (82.83 ± 3.25) is higher than in control class (81.20 ± 3.70). The same thing is also applied for low group, the average in experiment class (74.67 ± 4.49) is higher than in control class (71.80 ± 3.10). From the result of both of hypothesis test shown that high group $t_{count} > t_{table}$, $(6.42 > 1.31)$ while in low group $t_{count} > t_{table}$, $(5.92 > 1.31)$ and in high group $(1.84 > 1.31)$ in low group and $t_{count} > t_{table}$, $(6.13 > 1.31)$. It can be concluded that the innovative learning module on teaching of acid – base titration based on curriculum 2013 is effective to improve student's achievement in high and low group and can meet the requirement on student's competence in curriculum 2013.