THE IMPLEMENTATION OF INQUIRY STRATEGY BASED ON COLLABORATIVE TOWARDS THE STUDENTS ACHIEVEMENT IN TEACHING BUFFER SOLUTION

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ABSTRACT

This research has the purpose to know the students' achievement in teaching buffer solution by implementing the inquiry strategy based on collaborative. Beside that this research also has the purpose to know the students' cognitive aspects imrpovement in learning buffer solution with inquiry strategy based on collaborative compare with conventional method. The population of this research are all high school students year XI in SMA Negeri 16 Medan, which is the population in that school has 4 classes of XI grade year at academic year 2013/2014. The samples are choosen randomly. The samples are choosen two classes, first class as experimental class that implemented the inquiry strategy based on collaborative while the other class as control classs that implemented by direct instructional with the chemistry topic is buffer solution. This research instrument is achievement test which standarized by expert validators and empiric validity. The data is analyzed by KR-20 product moment. The result of the test is standardized and there is obtained 20 valid items with the reliabilty is 0.836. The research result showed that the data are normal distrbution and the samples are homogeneous. Experimental classs which is taught by inquiry strategy basd on collaborative can increased the students achievement in the average of the gain is 0.6856 ± 0.0818 and in control class which is taught by direct instructional is 0.465 ± 0.0918. the statistic data shown the significance different with the t_{count} (10.74) > t_{table} (1.688). The hypothesis conclude that students' achievement which is impelemented the inquiry startegy based on collaborative is higher significantly than direct instructional. In addition the cognitive aspect which is improved by implementing the inquiry strategy based on collaborative is C1, C2 and C3. Where the aerage of the normalized gain of the cognitive aspect in C1 (Knowledge) is 0.73 , C2 (Comprehension) is 0.76 and in C3 (Application) is 0.72, all of the cognitive aspects included as high category.