

THE INFLUENCE OF EXPERIMENTAL METHOD USING *PAS*
IN SENIOR HIGH SCHOOL TOWARD STUDENT'S
PROCESS SKILLS AND ACHIEVEMENT
IN THE COLLOIDAL SYSTEM

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ABSTRACT

The main purpose of this research to investigate the affectivity of practicum method using *PAS* on the teaching of colloid subject, whether the learning achievements of students who have learning by using the *PAS* are higher than students by using conventional methods, and the level of students sciences process skills by using *PAS*, also to test the feasibility of *PAS* guidance in the learning chemistry. The research has been conducted experimentally in MAN I Medan. This research was started from sampling process followed by pretest then the teaching treatment of the experimental method using *PAS* applied to the experimental class and the conventional method applied to the control class, followed by post test, process skill assessment and questionnaire. The last is analysis all of data to get the result and conclusion. Instrument for achievement test have been standardized by using validity, index of difficulty, and discriminating Power Index, and gotten 17 questions have been valid and reliable ($r_{\text{count}} = 0.87$). Calculation of post test data obtained, the average value of post test for experimental class is 86.41 ± 6.96 and the average value of post test for control class is 72.95 ± 5.35 , where the average value of gain of experiment class is 0.8 ± 0.112 , and the average value of gain of control class is 0.59 ± 0.086 . Hypothesis testing conducted by using right side t-test and got the data $t_{\text{count}}=1.686$ and $t_{\text{tabel}}=7.87$ with $\alpha = 0.05$, so $t_{\text{count}} > t_{\text{tabel}}$ ($7.87 > 1.686$). It can be concluded the alternative hypothesis (H_a) would be received and null hypothesis (H_o) would be rejected, so that there is significant different student achievement between experimental class and control class where student achievement who have been taught by using experimental method using *PAS* is higher than student achievement who have been taught by using conventional method. Through observation sheet gotten the student skill process in experimental class is 79 where the criteria level is enough. The Criteria level of feasibility of *PAS* guidance based on teacher's questionnaire is 85 where the criteria level is feasible. And the testing of student perception to *PAS* guidance gotten 79.32 where the criteria level is understand.