

Abstrak

Penelitian ini bertujuan untuk mengetahui perbedaan aktivitas belajar, hasil belajar siswa antara pembelajaran menggunakan model *Problem Based Learning* (PBL) dan model *Discovery Learning* (DL) berbantuan media *ISpring Presenter* serta melihat hubungan antara aktivitas terhadap aktivitas belajar siswa pada materi laju reaksi di SMA Negeri 18 Medan. Populasi dalam penelitian ini adalah seluruh Kelas XI IPA yang terdiri dari lima kelas. Sampel dalam penelitian ini diambil secara acak terpilih dua kelas yaitu Kelas XI IPA 1 di gunakan sebagai kelas eksperimen 1 dengan menggunakan pembelajaran PBL sedangkan kelas XI IPA 2 sebagai kelas eksperimen 2 dengan model DL. Instrumen yang digunakan dalam penelitian ini ada dua yakni instrument tes dan nontes. Instrumen tes untuk mengukur hasil belajar dalam bentuk pilihan berganda sebanyak 20 soal yang valid dan reliabel. Instrumen nontes berupa lembar observasi aktivitas belajar siswa yang digunakan untuk mengukur aktivitas siswa. Data dianalisis dengan uji t sampel independen. Hasil penelitian menunjukkan, untuk kelas eksperimen 1 : aktivitas $82,2 \pm 4,7$ hasil belajar $83,3 \pm 7,8$. Sedangkan kelas eksperimen 2 : aktivitas $75,7 \pm 5,5$ hasil belajar $76,0 \pm 11,01$. Dari pengujian statistik di peroleh sig $(0,000) < \alpha (0,05)$ untuk aktivitas, sedangkan untuk hasil belajar sig $(0,001) < \alpha (0,05)$ H_0 ditolak dan H_a diterima, serta hubungan antara aktivitas terhadap aktivitas belajar siswa diperoleh nilai sig $(0,000) < \alpha (0,05)$ dan sig $(0,001) < \alpha (0,05)$ pada kelas eksperimen 1 dan 2 secara berurutan. Dengan demikian, dapat disimpulkan bahwa ada perbedaan signifikan aktivitas dan hasil belajar serta terdapat korelasi antara aktivitas belajar terhadap hasil belajar siswa pada kelas eksperimen 1 dan kelas eksperimen 2 dengan kontribusi variabel aktivitas terhadap hasil belajar siswa sebesar 61% dan 34,5%.

Kata Kunci: Hasil Belajar, Aktivitas Belajar, *Problem Based Learning*, *Discovery Learning*, *ISpring Presenter*, Laju reaksi.



Abstract

This study aims to determine differences in learning activities, student learning outcomes between learning using the Problem Based Learning (PBL) model and the Discovery Learning (DL) model assisted by ISpring Presenter media and to see the relationship between activity and student learning activities on the material reaction rate in SMA Negeri 18 Medan. The population in this study were all Class XI IPA consisting of five classes. The sample in this study was taken randomly and selected two classes, namely Class XI IPA 1 was used as the experimental class 1 using PBL learning while class XI IPA 2 was used as the experimental class 2 with the DL model. There are two instruments used in this study, namely the test instrument and the non-test instrument. The test instrument for measuring learning outcomes is in the form of multiple choice of 20 valid and reliable questions. The non-test instrument is an observation sheet of student learning activities that is used to measure student activity. Data were analyzed by independent sample t test. The results showed that for the experimental class 1: activity 82.2 ± 4.7 , learning outcomes 83.3 ± 7.8 . While the experimental class 2: activity 75.7 ± 5.5 , learning outcomes 76.0 ± 11.01 . From the statistical test it was obtained $\text{sig} (0.000) < \alpha (0.05)$ for activity, whereas for learning outcomes $\text{sig} (0.001) < \alpha (0.05)$ H_0 was rejected and H_a was accepted, as well as the relationship between activity and the remaining learning activities obtained value $\text{sig} (0.000) < \alpha (0.05)$ and $\text{sig} (0.001) < \alpha (0.05)$ in experimental class 1 and 2 respectively. Thus, it can be concluded that there are significant differences in activity and learning outcomes and there is a correlation between learning activities on student learning outcomes in experimental class 1 and experimental class 2 with the contribution of activity variables to student learning outcomes of 61% and 34.5%.

Keywords: *Learning Outcomes, Learning Activities, Problem Based Learning, Discovery Learning, ISpring Presenter, Reaction rate.*

