

ABSTRAK

Sarah Pardede, NIM 4213141048 (2026), Perbandingan Aktivitas dan Hasil Belajar Menggunakan Model Pembelajaran *Project Based Learning* (PjBL) dan *Problem Based Learning* (PBL) pada Materi sistem Peredaran darah di SMA Negeri 12 Medan.

Penelitian ini bertujuan untuk mengetahui perbandingan aktivitas dan hasil belajar siswa yang diajar menggunakan model *Project Based Learning* (PjBL) dan *Problem Based Learning* (PBL) pada materi sistem peredaran darah di SMA Negeri 12 Medan. Penelitian ini merupakan penelitian eksperimen semu (*quasi experiment*) dengan desain *non-equivalent control group design*. Populasi dalam penelitian ini adalah seluruh siswa kelas XI IPA SMA N 12 Medan yang terdiri atas 7 kelas dengan total 251 siswa. Penentuan sampel dengan cara *purposive sampling*, yaitu kelas XI F5 sebagai kelas PjBL dan kelas XI F7 sebagai kelas PBL, masing-masing berjumlah 30 siswa. Pengumpulan data menggunakan tes pilihan berganda dan esai untuk mengukur hasil belajar serta lembar observasi untuk mengukur aktivitas belajar siswa. Hasil penelitian menunjukkan bahwa nilai posttest kelas PjBL sebesar 80,3 dan kelas PBL sebesar 75,5. Persentase aktivitas belajar kelas PjBL sebesar 74% dan kelas PBL sebesar 68,31%, keduanya berkategori baik. Hasil analisis uji-t (*Independent sample t-test*) menunjukkan nilai sig (2-tailed) $0,000 < 0,05$ yang berarti H_a diterima dan H_o ditolak. Dapat disimpulkan bahwa aktivitas dan hasil belajar siswa yang diajar menggunakan model PjBL lebih tinggi dibandingkan dengan model PBL pada materi sistem peredaran darah.

Kata Kunci: *Project Based Learning* (PjBL), *Problem Based Learning* (PBL), Aktivitas Belajar, Hasil Belajar



ABSTRACT

Sarah Pardede, Student ID 4213141048 (2026), Comparison of Learning Activity and Learning Outcomes Using Project Based Learning (PjBL) and Problem Based Learning (PBL) Models on Circulatory System Material at SMA Negeri 12 Medan.

This study aims to determine the comparison of learning activity and learning outcomes of students taught using Project Based Learning (PjBL) and Problem Based Learning (PBL) models on circulatory system material at SMA N 12 Medan. This research is a quasi-experimental study with a non-equivalent control group design. The population in this study consisted of all students in grade XI Science at Senior High School 12 Medan, comprising 7 classes with a total of 251 students. Sample determination was conducted using purposive sampling technique, namely class XI F5 as the PjBL class and class XI F7 as the PBL class, each consisting of 30 students. Data collection used multiple-choice and essay tests to measure cognitive learning outcomes and observation sheets to measure student learning activity. Based on the research results, the posttest score for the PjBL class was 80.3 and the PBL class was 75.5. The percentage of learning activity in the PjBL class was 74% and the PBL class was 68.31%, both categorized as good. The results of the t-test analysis (independent sample t-test) showed a sig (2-tailed) value of $0.000 < 0.05$, which means H_a was accepted and H_o was rejected. It can be concluded that the learning activity and learning outcomes of students taught using the PjBL model were higher compared to the PBL model on circulatory system material.

Keywords: Project Based Learning (PjBL), Problem Based Learning (PBL), Learning Activity, Learning Outcomes.

