ABSTRAK

Nella Charolin Sinaga, NIM 4203141016 (2024). Pengaruh Model *Problem Based Learning* (PBL) terhadap Hasil Belajar Siswa Materi Sistem Pernapasan Manusia Kelas XI IPA SMAN 1 Girsang Sipangan Bolon T.P. 2023/2024.

Penelitian ini bertujuan untuk mengetahui pengaruh model *Problem Based Learning* terhadap hasil belajar siswa pada aspek kognitif materi sistem pernapasan manusia di kelas XI IPA SMA Negeri 1 Girsang Sipangan Bolon T.P. 2023/2024. Penelitian ini menggunakan penelitian eksperimen semu (*Quasi Experiment*) dengan desain *Pretest-Posttest Non-equivalent Control Group Design*. Populasi dalam penelitian ini adalah seluruh siswa kelas XI IPA SMA Negeri 1 Girsang Sipangan Bolon Tahun Pelajaran 2023/2024 yang berjumlah 130 siswa. Pengambilan sampel dalam penelitian ini menggunakan teknik *purposive sampling*. Sampel dalam penelitian ini sebanyak 60 siswa kelas XI IPA. Kelas XI IPA 1 yang berjumlah 30 orang digunakan sebagai kelas eksperimen dengan menggunakan model *Problem Based Learning* dan kelas XI IPA 4 yang berjumlah 30 orang digunakan sebagai kelas kontrol dengan menggunakan pembelajaran konvensional. Teknik pengumpulan data dilakukan dengan pemberian instrumen tes berbentuk pilihan berganda sebanyak 20 soal. Dari hasil penelitian diperoleh rata-rata hasil belajar pada kelas eksperimen berupa *pretest* sebesar 38,33 dan *posttest* sebesar 79,33 sedangkan pada kelas kontrol diperoleh rata-rata hasil belajar berupa *pretest* sebesar 36,67 dan *posttest* sebesar 55,5. Analisis data pada penelitian ini menggunakan uji normalitas, uji homogenitas, dan uji t (*Independent Sample T-test*) dengan bantuan *software* SPSS 29. Berdasarkan hasil uji hipotesis *Independent Sample T-Test* diperoleh nilai sig $0,000 < 0,05$ yang berarti model *Problem Based Learning* berpengaruh terhadap hasil belajar siswa pada materi sistem pernapasan manusia di kelas XI IPA SMA Negeri 1 Girsang Sipangan Bolon T.P. 2023/2024.

Kata Kunci: *Problem Based Learning*, hasil belajar, sistem pernapasan manusia.

ABSTRACT

Nella Charolin Sinaga, NIM 4203141016 (2024). The Influence of the Problem Based Learning (PBL) Model on Student Learning Outcomes on Human Respiratory System Material Class XI IPA SMAN 1 Girsang Sipangan Bolon T.P. 2023/2024.

This research aims to determine the effect of the Problem Based Learning model on student learning outcomes in the cognitive aspects of human respiratory system material in class XI IPA at SMA Negeri 1 Girsang Sipangan Bolon T.P. 2023/2024. This research uses quasi-experimental research (Quasi Experiment) with a Pretest-Posttest Non-equivalent Control Group Design. The population in this study were all students in class XI IPA at SMA Negeri 1 Girsang Sipangan Bolon for the 2023/2024 academic year, totaling 130 students. Sampling in this research used purposive sampling technique. The sample in this study was 60 students of class XI IPA. Class XI IPA 1, totaling 30 people, was used as an experimental class using the Problem Based Learning model and class XI IPA 4, totaling 30 people, was used as a control class using conventional learning. The data collection technique was carried out by administering a test instrument in the form of multiple choice with 20 questions. From the research results, the average learning outcomes in the experimental class were 38,33 in the form of a pretest and 79,33 in the posttest, while in the control class the average learning outcomes in the pretest were 36,67 and the posttest was 55,5. Data analysis in this study used the normality test, homogeneity test, and t test (Independent Sample T-test) with the help of SPSS 29 software. Based on the results of the Independent Sample T-Test hypothesis test, a sig value of $0.000 < 0.05$ was obtained, which means the Problem Based model Learning influences student learning outcomes in human respiratory system material in class XI IPA at SMA Negeri 1 Girsang Sipangan Bolon T.P. 2023/2024.

Keywords: Problem Based Learning, learning outcomes, human respiratory system.