ABSTRAK

Ribka Gloria Sidabutar, NIM 4191141002 (2024). Analisis Kemampuan Pemecahan Masalah dan Hasil Belajar Kognitif Siswa dengan Model *Problem Based Learning* Pada Materi Sistem Peredaran Darah Kelas XI IPA SMA Negeri 18 Medan.

Penelitian ini bertujuan untuk mendeskripsikan kemampuan pemecahan masalah dan hasil belajar kognitif siswa dengan model *problem based learning* pada materi sistem peredaran darah kelas XI IPA SMA Negeri 18 Medan. Penelitian ini merupakan penelitian deskriptif kuantitatif. Populasi dalam penelitian ini adalah seluruh siswa kelas XI IPA sebanyak 177 siswa. Sampel yang digunakan sebanyak 36 siswa yang diambil dengan teknik *random sampling*. Instrumen yang digunakan berupa tes kemampuan pemecahan masalah dan tes hasil belajar kognitif. Data yang diperoleh terlebih dahulu ditabulasi kemudian dianalisis dengan menggunakan metode deskriptif kuantitatif. Berdasarkan hasil penelitian, diperoleh kemampuan pemecahan masalah siswa kelas XI IPA SMA Negeri 18 Medan pada materi sistem peredaran darah dengan model *problem based learning* dikategorikan dalam kategori tinggi (78,83). Indikator mengidentifikasi masalah memperoleh nilai rata-rata sebesar 92,1 dengan kriteria sangat tinggi, indikator mendeskripsikan masalah memperoleh nilai rata-rata sebesar 81,9 dengan kriteria sangat tinggi, indikator merencanakan solusi memperoleh nilai rata-rata sebesar 77 dengan kriteria tinggi, indikator melaksanakan solusi pemecahan masalah memperoleh nilai rata-rata 73 dengan kriteria tinggi, dan indikator melakukan evaluasi memperoleh nilai rata-rata 72 dengan kriteria tinggi. Hasil belajar kognitif siswa kelas XI IPA SMA Negeri 18 Medan pada materi sistem peredaran darah dengan model *problem based learning* dikategorikan ke dalam kriteria baik (81,78). Sebanyak 33 siswa dinyatakan tuntas belajar dengan persentase 91,66% dan 3 siswa dinyatakan tidak tuntas belajar dengan persentase 8,34%. Hasil belajar kognitif berdasarkan aspek indikator pembelajaran dikategorikan ke dalam kriteria baik (82,22) dan hasil belajar kognitif berdasarkan aspek taksonomi bloom dikategorikan ke dalam kriteria baik (81,48).

Kata Kunci: Kemampuan pemecahan masalah, hasil belajar kognitif, model *problem based learning*, sistem peredaran darah.

ABSTRACT

Ribka Gloria Sidabutar, NIM 4191141002 (2024). Analysis of Problem Solving Abilities and Students Cognitive Learning Outcomes using the Problem Based Learning Model on the Circulatory System for Class XI Science at SMA Negeri 18 Medan.

This research aims to describe the problem solving abilities and cognitive learning outcomes of students using the problem based learning model on the circulatory system for class XI Science at SMA Negeri 18 Medan. This research is quantitative descriptive. The population in this study was all 177 students in class XI Science. The sample used was 36 students taken using random sampling technique. The instruments used are problem solving ability tests and cognitive learning outcomes tests. The data obtained was first tabulated and then analyzed using quantitative descriptive methods. Based on research results, it was found that students problem solving abilities in the circurlatory system were included in the high category (78.83). The indicator for identify the problem got an average score of 92.1 with very high criteria, the indicator for define and represent the problem got an average score of 81.9 with very high criteria, the indicator for explore possible strategies got an average score of 77 with high criteria, the indicator for act on strategies obtained an average score of 73 with high criteria, and indicator for look back and evaluate the effects of your activities obtained an average score of 72 with high criteria. Students cognitive learning outcomes on the circulatory system using the problem based learning model are categorized into good criteria (81.78). A total of 33 students were declared complete learners with a percentage of 91.66% and 3 students were declared incomplete learners with a percentage of 8.34%. Cognitive learning outcomes based on learning indicator aspects are categorized into good criteria (82,22) and cognitive learning outcomes based on Bloom's taxonomy aspects are categorized into good criteria (81,48).

Keywords: Problem solving abilities, cognitive learning outcomes, problem based learning models, circulatory system.