

ABSTRAK

Oswaldo Raphael Sagala, NIM 4193111099 (2023). Penerapan Model Pembelajaran *Problem Based Learning* (PBL) Dengan Pendekatan *Open-Ended* Untuk Meningkatkan Kemampuan Pemecahan Masalah Matematika Siswa Kelas XI SMA

Penelitian ini bertujuan untuk meningkatkan kemampuan pemecahan masalah matematika siswa kelas XI SMA Negeri 11 Medan dengan menerapkan model pembelajaran *Problem Based Learning* dengan pendekatan *Open-Ended*. Subjek dalam penelitian ini adalah siswa kelas XI-IPS 4 SMA Negeri 11 Medan yang berjumlah sebanyak 26 orang. Jenis penelitian yang digunakan adalah penelitian tindakan kelas yang dilaksanakan dalam 2 siklus. Tiap siklus terdiri dari 4 tahap yaitu perencanaan, pelaksanaan, observasi/evaluasi dan refleksi. Hasil penelitian menunjukkan bahwa kemampuan pemecahan masalah matematika siswa dapat meningkat setelah model pembelajaran *Problem Based Learning* dengan pendekatan *Open-Ended* diterapkan. Peningkatan diperoleh melalui skor rata-rata siswa dari 36,73 dalam kategori rendah meningkat pada siklus I menjadi 61,65 dalam kategori sedang serta meningkat pada siklus II menjadi 80,76 dalam kategori tinggi. Peningkatan juga diperoleh dari kemampuan siswa secara klasikal dimana pada siklus I diperoleh sebanyak 11 siswa (42,30%) tuntas. Lalu, pada siklus II diperoleh sebanyak 23 siswa (88,46%) tuntas secara klasikal. Sehingga disimpulkan bahwa penerapan model pembelajaran *Problem Based Learning* dengan pendekatan *Open-Ended* dapat meningkatkan kemampuan pemecahan masalah matematika siswa kelas XI-IPS 4 SMA Negeri 11 Medan.

Kata kunci: Model pembelajaran *Problem Based Learning*, *Open-Ended*, kemampuan pemecahan masalah.

ABSTRACT

Oswaldo Raphael Sagala, NIM 4193111099 (2023). Application of Problem Based Learning (PBL) Learning Model with Open-Ended Approach to Improve Mathematics Problem Solving Ability of Grade XI High School Students.

This study aims to improve the mathematical problem solving ability of 11th grade students of SMA Negeri 11 Medan by applying *Problem Based Learning* model with *Open-Ended* approach. The subjects in this study were students of class XI-IPS 4 SMA Negeri 11 Medan which amounted to 26 people. The type of research used was classroom action research which was carried out in 2 cycles. Each cycle consists of 4 stages, namely planning, implementation, observation/evaluation and reflection. The results showed that students' mathematical problem solving skills could improve after the *Problem Based Learning* model with an *Open-Ended* approach was applied. The increase was obtained through the students' average score from 36.73 in the low category increased in cycle I to 61.65 in the medium category and increased in cycle II to 80.76 in the high category. The improvement was also obtained from the students' ability classically where in cycle I, 11 students (42.30%) were complete. Then, in cycle II, 23 students (88.46%) were classically complete. So it is concluded that the application of the *Problem Based Learning* learning model with an *Open-Ended* approach can improve the mathematical problem solving ability of students in class XI-IPS 4 SMA Negeri 11 Medan.

Keywords: *Problem Based Learning* model, *Open-Ended*, problem solving ability.