

**PENGARUH MODEL *PROBLEM BASED LEARNING* BERBANTUAN *GEOGEBRA*
TERHADAP KEMAMPUAN PEMECAHAN MASALAH DAN BERPIKIR KRITIS
MATEMATIKA SISWA KELAS X SMA N I PETANG**

Oleh

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ABSTRAK

Tujuan penelitian ini adalah untuk mengetahui perbedaan dan mendeskripsikan kemampuan pemecahan masalah dan kemampuan berpikir kritis siswa yang mengikuti pembelajaran model *Problem Based Learning* berbantuan *GeoGebra* dengan siswa yang mengikuti pembelajaran konvensional. Penelitian ini merupakan penelitian eksperimen semu yang menggunakan *post-test only control group design*. Populasi penelitian ini adalah seluruh siswa kelas X SMA Negeri I Petang tahun pelajaran 2019/2020. Siswa kelas X SMA Negeri I Petang sebanyak 366 siswa dan terbagi menjadi sebelas kelas. Sampel yang digunakan adalah sebanyak 65 siswa yang terbagi menjadi dua kelas (kelas eksperimen dan kontrol). Sampel ditentukan dengan teknik *cluster random sampling*. Instrumen penelitian yang digunakan berupa tes kemampuan pemecahan masalah dan berpikir kritis matematika. Data yang diperoleh dianalisis menggunakan uji MANOVA. Hasil analisis menunjukkan bahwa Kemampuan pemecahan masalah dan kemampuan berpikir kritis yang mengikuti pembelajaran dengan model *Problem Based Learning* berbantuan *GeoGebra* lebih baik daripada siswa yang mengikuti pembelajaran konvensional ($F = 1917,095$ dan $\text{Sig.} = 0,000$; $p < 0,05$)

Kata-kata kunci: Model *Problem Based Learning*, kemampuan pemecahan masalah, kemampuan berpikir kritis.

THE EFFECT OF THE GEOGEBRA-ASSISTED PROBLEM BASED LEARNING MODEL ON PROBLEM SOLVING ABILITY AND CRITICAL THINKING ABILITY FOR CLASS X STUDENTS OF SMA NEGERI I PETANG

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ABSTRACT

This study aimed to know the differences and to describe the ability of problem solving and critical thinking skills of students who engaged in Problem Based Learning with geogebra with students who took conventional learning. This research was a quasi-experimental study using post-test only control group design. The population of this research is the tenth grade students of SMA Negeri I Petang academic year of 2019/2020. There were 366 students in class X of SMA Negeri I Petang and were divided into eleven classes. In this study, the sample used were 65 students who were divided into two classes (experimental and control classes). The sample was determined by cluster random sampling technique. The research instruments were in the form of problem solving skills and mathematical critical thinking tests. The data obtained were analyzed using MANOVA test. The results of the analysis showed that the students' ability in solving problems and thinking critically using Problem Based Learning model assisted with geogebra was better than those who took conventional learning ($F = 1917,095$ and $\text{Sig.} = 0,000$; $\rho < 0.05$)

Key words: Problem Based Learning Model, problem solving ability, critical thinking ability.

