

## ABSTRAK

**Octaviani Sitompul, NIM 4183311023 (2022). Pengaruh Pembelajaran Berbasis *Problem Based Learning* Melalui *Lesson Study* Terhadap Hasil Belajar Matematika Siswa Kelas XI SMA Negeri 7 Medan.**

Penelitian ini bertujuan untuk : (1) mengetahui pengaruh pembelajaran berbasis *problem based learning* melalui *lesson study* lebih baik daripada pembelajaran biasa terhadap hasil belajar matematika siswa kelas XI SMA Negeri 7 Medan Tahun Ajaran 2021/2022; (2) mengetahui ada tidaknya interaksi antara pembelajaran dan kemampuan awal matematis (tinggi, sedang dan rendah) terhadap hasil belajar matematika siswa kelas XI SMA Negeri 7 Medan Tahun Ajaran 2021/2022. Jenis penelitian yang digunakan pada penelitian ini adalah penelitian eksperimen semu dengan desain faktorial  $2 \times 3$ . Pengambilan sampel dilakukan dengan *simple random sampling* dan kelas yang terpilih yaitu XI IPA 3 sebagai kelas eksperimen dan XI IPA 4 sebagai kelas kontrol. Instrumen yang digunakan pada penelitian ini adalah soal tes kemampuan awal matematis dan soal *posttest*. Pengujian hipotesis dilakukan dengan bantuan *software* SPSS yaitu uji t pihak kanan dan uji anava dua arah. Tetapi sebelumnya, dilakukan uji prasyarat yaitu uji normalitas dan uji homogenitas. Dari hasil uji prasyarat, diperoleh bahwa data dalam penelitian berdistribusi normal dan homogen. Hasil penelitian menunjukkan bahwa: (1) pengaruh pembelajaran berbasis *problem based learning* melalui *lesson study* lebih baik daripada pembelajaran biasa terhadap hasil belajar matematika siswa kelas XI SMA Negeri 7 Medan Tahun Ajaran 2021/2022; (2) tidak terdapat interaksi antara pembelajaran dan kemampuan awal matematis (tinggi, sedang dan rendah) terhadap hasil belajar matematika siswa kelas XI SMA Negeri 7 Medan Tahun Ajaran 2021/2022.

**Kata kunci:** *Problem Based Learning* (PBL), Pembelajaran Biasa, *Lesson Study*, Kemampuan Awal Matematis, Hasil Belajar.

## ABSTRACT

**Octaviani Sitompul, NIM 4183311023 (2022). The Effect of Problem Based Learning Through Lesson Study on Mathematics Learning Outcomes of Class XI Studentss at SMA Negeri 7 Medan.**

This study aims to: (1) determine the effect of problem-based learning through lesson study which is better than ordinary learning on the mathematics learning outcomes of XI grade students of SMA Negeri 7 Medan in the 2021/2022 academic year; (2) determine whether there is an interaction between the learning and initial mathematical abilities (high, medium, and low) on the mathematical learning outcomes of class XI students of SMA Negeri 7 Medan in the 2021/2022 academic year. The type of research used in this study is a quasi-experimental research with a  $2 \times 3$  factorial design. Sampling was done by simple random sampling and the selected class was XI IPA 3 as the experimental class and XI IPA 4 as the control class. The instrument used in this research is a matter of early mathematical ability tests and post-tests. Hypothesis testing was carried out with the help of SPSS software, namely the right-hand t-test and the two-way ANOVA test. But before that, prerequisite tests were carried out, namely the normality test and homogeneity test. From the results of the prerequisite test, it was found that the data in the study were normally distributed and homogeneous. The results showed that: (1) the effect of problem-based learning through lesson study was better than ordinary learning on the mathematics learning outcomes of class XI students of SMA Negeri 7 Medan in the 2021/2022 academic year; (2) there is no interaction between the learning and initial mathematical abilities (high, medium and low) on the mathematics learning outcomes of class XI students of SMA Negeri 7 Medan in the 2021/2022 academic year.

**Keywords:** Problem based learning (PBL), Ordinary learning, Lesson study, Initial mathematical abilities, Mathematical learning outcomes