

## ABSTRAK

### **Rani Handayani Sihombing, NIM 4203111068 (2024), Pengaruh Penerapan e-Modul Berbasis *Problem Based Learning* Terhadap Kemampuan Pemecahan Masalah Matematis Peserta Didik SMPN 5 Medan**

Penelitian ini bertujuan untuk mengetahui pengaruh penerapan e-Modul berbasis *Problem Based Learning* terhadap kemampuan pemecahan masalah matematis peserta didik kelas VIII SMP Negeri 5 Medan T.A 2023/2024. Penelitian ini merupakan penelitian kuantitatif bersifat deskriptif dengan metode penelitian yang digunakan adalah metode *quasi eksperimen design*. Sampel dalam penelitian ini terdiri dari dua kelas yaitu kelas VIII-1 sebagai kelas eksperimen dan kelas VIII-7 sebagai kelas kontrol. Kelas eksperimen menggunakan e-Modul berbasis *Problem based learning* dan kelas kontrol hanya menggunakan buku paket penganan peserta didik. Pengumpulan data dilakukan menggunakan instrumen tes dan angket. Data yang diperoleh diolah secara deskriptif menggunakan *IBM SPSS Statistics 22 for windows* dan dianalisis dengan uji *Independent Sample T-Test*. Dari pengolahan dan analisis data diperoleh hasil yaitu persentase rata-rata nilai kelas eksperimen > kelas kontrol yaitu 81,60% > 74,60%, dengan uji *Independent Sample T-Test* diperoleh signifikansi data < 0,05 (0,000);  $H_0$  ditolak dan  $H_a$  diterima, artinya terdapat pengaruh penerapan e-Modul berbasis *Problem based learning* terhadap kemampuan pemecahan masalah matematis peserta didik.

**Kata Kunci:** Kemampuan pemecahan masalah matematis, e-Modul, *Problem based learning*.

## ABSTRACT

**Rani Handayani Sihombing, NIM 4203111068 (2024), The Effect of Problem Based Learning Based e-Module Application on Mathematical Problem Solving Ability of Students of SMPN 5 Medan**

This study aims to determine the effect of the application of e-Modules based on Problem Based Learning on the mathematical problem solving skills of students in class VIII SMP Negeri 5 Medan T.A 2023/2024. This research is a descriptive quantitative research with the research method used is the quasi experimental design method. The sample in this study consisted of two classes, namely class VIII-1 as the experimental class and class VIII-7 as the control class. The experimental class used e-Modules based on Problem-based learning and the control class only used student pack books. Data collection was carried out using test instruments and questionnaires. The data obtained were processed descriptively using IBM SPSS Statistics 22 for windows and analyzed by Independent Sample T-Test. From the data processing and analysis, the results were obtained, namely the average percentage of the value of the experimental class > the control class, which was 81.60% > 74.60%, with the Independent Sample T-Test obtained a data significance of < 0.05 (0.000);  $H_0$  was rejected and  $H_a$  was accepted, meaning that there was an effect of the implementation of Problem-based learning-based e-Modules on students' mathematical problem-solving skills.

**Keywords:** Mathematical problem solving abilities, e-Module, Problem based learning.