

## ABSTRAK

**Alex Wiranto Sihombing, NIM 4173111004 (2021). Pengaruh Penggunaan Media Pembelajaran Interaktif Berbasis *Mobile (Smart Apps Creator)* dalam Model *Problem Based Learning* terhadap Kemampuan Pemecahan Masalah Matematis Siswa Kelas VII SMPN 5 Medan.**

Penelitian ini dilakukan untuk melihat apakah terdapat pengaruh penggunaan media pembelajaran interaktif berbasis *mobile* dalam model *Problem Based Learning* (PBL) pada kemampuan pemecahan masalah matematis siswa. Penelitian ini dilakukan di SMP Negeri 5 Medan T.A 2021/2022. Metode penelitian yang digunakan adalah metode *quasi experiment design*. Sampel dalam penelitian ini terdiri dari dua kelas yaitu kelas VII-2 sebagai kelas eksperimen serta kelas VII-3 berlaku sebagai kelas kontrol. Kelas eskperimen dengan penggunaan media pembelajaran interaktif berbasis *mobile* dalam model *Problem Based Learning* dan kelas kontrol dengan pembelajaran konvensional. Perolehan hasil rata-rata skor tes akhir (*post-test*) siswa kelas eksperimen yaitu sebesar 60,81; lebih tinggi daripada hasil rata-rata skor tes akhir siswa keas kontrol (kelas konvensional) yaitu 41,06. Pada uji hipotesis, diperoleh hasil uji perbedaan rata-rata (uji-t) dengan statistik nilai  $t_{hitung} > t_{tabel}$  ( $12,01 > 1,669$ ) yang artinya terdapat pengaruh dari penggunaan media pembelajaran yang diterapkan pada kelas eksperimen. Hal tersebut juga menandakan bahwa kemampuan pemecahan masalah matematis siswa kelas eksperimen lebih baik daripada kelas kontrol. Kemudian pada skor angket respon siswa terhadap media pembelajaran memperoleh nilai rata-rata sebesar 82,72%, dimana nilai rata-rata tersebut termasuk pada kategori sangat baik.

**Kata kunci:** Media pembelajaran interaktif, *mobile learning*, *Problem Based Learning*, Kemampuan Pemecahan Masalah Matematis.

## ABSTRACT

**Alex Wiranto Sihombing, NIM 4173111004 (2021). *The Effect of Using Mobile-Based Interactive Learning Media in Problem Based Learning Models on Mathematical Problem Solving Ability of Students in Class VII SMPN 5 Medan.***

*This study was conducted to see whether or not the use of mobile-based interactive learning media in Problem Based Learning models has on student's abilities of mathematical problem solving. This research was conducted at SMPN 5 Medan in 2021/2022 academic year. The research method applied is a quasi-experimental design method. The sample in this study consisted of two classes, namely class VII-2 as the experimental class and VII-3 as the control class. Experimental class with the use of mobile-based interactive learning media in the Problem Based Learning model and control class with conventional learning system. The average result of the final test score of the experimental class students is 60,81; which is higher than the result of the average final test score of the control class (conventional class) which is 41,06. In the hypothesis test, the results of the average difference test (t-test), with the statistical value of  $t_{hitung} > t_{tabel}$  ( $12,01 > 1,669$ ), which means that there is an effect of using mobile-based interactive learning media in the Problem Based Learning model on student's mathematical problem solving abilities. It also indicates that the mathematical problem solving ability of the experimental students is better than the control class. Then on the questionnaire scores of student's responses to the applied learning media obtained an average value of 82,72%, where the value was included in the very good category.*

**Key Words:** *Interactive Learning Media, mobile learning, Problem Based Learning, Mathematical Problem Solving Ability.*