

ABSTRAK

Saniy Basiyroh Manullang, NIM 4193111004 (2023). Pengaruh Model Problem Based Learning Terhadap Kemampuan Computational Thinking Berbantuan Media Geogebra Pada Siswa Kelas VIII SMP Negeri 23 Medan.

Penelitian ini bertujuan untuk mengetahui: (1) pengaruh model *problem based learning* terhadap kemampuan *computational thinking* berbantuan media geogebra; (2) respon siswa terhadap penggunaan model *problem based learning* berbantuan geogebra terhadap materi bangun ruang sisi datar. Jenis penelitian yang digunakan yaitu *quasi eksperimen* dengan menggunakan dua kelas sebagai kelas eksperimen dan kelas kontrol dengan desain penelitian *posttest-only control design*. Sampel pada penelitian ini menggunakan *cluster random sampling* pada siswa kelas VIII di SMP Negeri 23 Medan pada tahun 2022/2023 yang terbagi atas 25 siswa kelas eksperimen dan 25 siswa kelas kontrol. Pengumpulan data dilakukan dengan pemberian soal *posttest* dalam bentuk uraian serta pemberian angket. Data hasil tes dianalisis menggunakan pengujian *t-test* dan data angket respon siswa dianalisis dengan persentase. Dari hasil analisis data (1) pada uji *t-test* diperoleh $t_{hitung} (5,928) > t_{tabel} (2,011)$ maka H_0 ditolak serta H_a di terima ini mengartikan terdapat pengaruh yang signifikan dari model *problem based learning* berbantuan geogebra terhadap kemampuan *computational thinking*. Besarnya pengaruh diukur dengan *effect size*, diperoleh hasil 1,678 dengan kategori besar. Hal ini menunjukkan bahwa model *problem based learning* memiliki pengaruh yang besar terhadap kemampuan *computational thinking* siswa kelas VIII SMP Negeri 23 Medan; (2) data angket respon diperoleh persentase sebesar 79,2% dengan ketentuan setuju serta sangat setuju. Berlandaskan kriteria persentase respon siswa maka terdapat respon positif siswa terhadap penggunaan model *problem based learning* berbantuan geogebra terhadap materi bangun ruang sisi datar (prisma dan limas).

Kata Kunci: Model *problem based learning*, kemampuan *computational thinking*, geogebra, respon siswa



ABSTRACT

Saniy Basiyroh Manullang, NIM 4193111004 (2023). The Effect of Problem Based Learning Models on Computtaional Thinking Skills Assisted by GeoGebra Media in Class VIII Students of SMP Negeri 23 Medan.

The study aims to determine: (1) the effect of the problem-based learning models on computational thinking skills assisted by GeoGebra media; (2) student responses to the use of geogebra-assisted problem-based learning models for flat sided geometric material. The type of research used is a quasi-experimental using two classes as an experimental class and a control class with a posttest-only control design. The sample in this study used cluster random sampling in class VIII students at SMP Negeri 23 Medan in 2022/2023 which was divided into 25 students in the experimental class and 25 students in the control class. Data collection was carried out by giving posttest questions in the form of descriptions and giving questionnaires. Test result data were analyzed using the t-test and simple regression analysis while the student response questionnaire data was analyzed by percentage. From the results of data analysis (1) in the t-test data obtained $t_{hitung} (5,928) > t_{tabel} (2.011)$ then H_0 is rejected and H_a is accepted. This means that there is a significant effect of the geogebra-assisted problem-based learning model on computational thinking ability. The magnitude of the effect is measured by the effect size, the result is 1,678 with the large category. This shows that the problem-based learning model has a major influence on the computational thinking abilities of class VIII students of SMP Negeri 23 Medan; (2) response questionnaire data obtained a percentage of 79.2% with the terms agree and strongly agree. Based on the provisions of the percentage of student responses, there is a positive response from students towards the use of geogebra-assisted problem-based learning model for flat sided geometric material (prisms and pyramids).

Keywords: Problem-based learning model, computational thinking skills, geogebra, student response

