

ABSTRAK

Asmin Banija Sibarani, NIM. 4172111925. (2021). Metaanalisis Pengaruh Model *Problem-based Learning* Terhadap Kemampuan Pemecahan Masalah Matematis Siswa.

Penelitian ini bertujuan untuk mengetahui besar pengaruh model *Problem-based Learning* terhadap kemampuan pemecahan masalah matematis siswa berdasarkan jenjang pendidikan. Penelitian ini adalah penelitian metaanalisis jenis deskriptif terhadap analisis hasil publikasi penelitian ilmiah pada *e-journal* nasional tahun 2016-2020. Subjek penelitian ini yaitu artikel penelitian mengenai pengaruh model *Problem-based Learning* terhadap kemampuan pemecahan masalah matematis siswa yang di index oleh Sinta (*science and Technology Index*). Objek penelitian yaitu pencapaian kemampuan pemecahan masalah matematis siswa yang dilaporkan peneliti terdahulu pada artikel penelitian. Saringan yang digunakan dalam pemilihan artikel yaitu (1) penelitian kuantitatif dan memenuhi data *effect size*, (2) adanya data *effect size* yang dibutuhkan seperti rerata kemampuan pemecahan masalah matematis siswa dan standard deviasinya, (3) artikel yang diterbitkan lima tahun terakhir, (4) indikator kemampuan pemecahan masalah matematis yang digunakan, (5) jenjang pendidikan pada tingkat SMP sederajat dan SMA sederajat. Hasil penelitian: (1) secara keseluruhan model *Problem-based Learning* mampu meningkatkan kemampuan pemecahan masalah matematis siswa dengan nilai *effect size* sebesar 0,71 pada kategori efek besar, (2) besar pengaruh model *Problem-based Learning* berdasarkan jenjang pendidikan mampu meningkatkan kemampuan pemecahan masalah matematis siswa pada tingkat SMP sederajat lebih tinggi yaitu dengan nilai *effect size* sebesar 0.78 dibandingkan pada tingkat SMA sederajat yaitu sebesar 0,55 dengan kategori efek besar, (3) besar pengaruh model *Problem-based Learning* berdasarkan wilayah menunjukkan hasil yang positif pada wilayah Sumatera Selatan dengan nilai *effect size* sebesar 1,50 pada kategori efek besar.

Kata Kunci: Metaanalisis, Model *Problem-based Learning*, Kemampuan Pemecahan Masalah Matematis Siswa

ABSTRACT

Asmin Banija Sibarani, NIM. 4172111925. (2021). Metaanalysis of the Effect of Problem-Based Learning Model on Student's Mathematical Communication Ability.

This study aims to determine the influence of the problem-based learning model on students' mathematical problem solving abilities based on meta-analysis studies. This research is a descriptive meta-analysis research on the analysis of the results of scientific research publications in national e-journals in 2016-2020. The subject of this research is a research article on the effect of the Problem-based Learning model on students' mathematical problem solving abilities indexed by Sinta (Science and Technology Index). The object of research is the achievement of students' mathematical problem solving after being tested with test instruments. The filters used in the selection of articles were (1) quantitative research and fulfilling the effect size data, (2) the existence of the required effect size data such as students' average mathematical problem solving abilities and their standard deviation, (3) articles published in the last five years, (4) indicators of mathematical problem solving abilities used, (5) education level at the junior high school level and high school equivalent. The results of the study: (1) overall the Problem-based Learning model was able to improve students' mathematical problem solving abilities with an effect size value of 0.71 in the large effect category, (2) the large effect of the Problem-based Learning model based on education level was able to improve solving abilities Mathematical problems of students at the junior high school level are equivalent, namely with an effect size value of 0.78 compared to the high school level equivalent, which is 0.55 with a large effect category, (3) the magnitude of the influence of the Problem-based Learning model by region shows positive results in the Sumatra region South with an effect size of 1.50 in the large effects category.

Keywords: Metaanalysis, *Problem-based Learning Model*, Student's Mathematical Problem Solving Abilities.