

ABSTRAK

Dina Suprianti, 1202050035 (2024). “Pembelajaran *Heuristik* dengan Pendekatan *Strategic Thinking* Berbantuan Aplikasi *Desmos* dalam Meningkatkan Kemampuan Pemecahan Masalah Matematis dan *Persistence* Siswa”

Pembelajaran *heuristik* dengan pendekatan *strategic thinking* diperlukan untuk meningkatkan kemampuan pemecahan masalah matematis dan *persistence* siswa. Penelitian ini bertujuan untuk meningkatkan kemampuan pemecahan masalah matematis dan *persistence* siswa melalui penerapan pembelajaran *heuristik* dengan pendekatan *strategic thinking* berbantuan aplikasi *Desmos*. Metode penelitian yang digunakan yaitu quasi eksperimen dengan *non-equivalent control group design*. Hasil penelitian ini menunjukkan beberapa temuan utama: (1) mengetahui lintasan proses pembelajaran *heuristik* dengan pendekatan *strategic thinking* berbantuan aplikasi *Desmos* dalam meningkatkan kemampuan pemecahan masalah matematis dan *persistence* siswa, (2) terdapat perbedaan peningkatan kemampuan pemecahan masalah matematika antara siswa yang melaksanakan pembelajaran *heuristik* dengan pendekatan *strategic thinking* berbantuan aplikasi *Desmos*, daripada siswa yang diberikan pembelajaran ekspositori, (3) terdapat perbedaan pencapaian peningkatan kemampuan pemecahan masalah matematika antara siswa yang melaksanakan pembelajaran *heuristik* dengan pendekatan *strategic thinking* berbantuan aplikasi *Desmos* daripada siswa diberikan pembelajaran ekspositori berdasarkan *gender*, 4). terdapat perbedaan peningkatan *persistence* antar siswa yang melaksanakan pembelajaran *heuristik* dengan pendekatan *strategic thinking* berbantuan aplikasi *Desmos* daripada siswa yang diberikan pembelajaran ekspositori, dan (5) hambatan dan kendala siswa dalam menyelesaikan soal kemampuan pemecahan masalah matematis terdapat pada indikator memeriksa kembali penyelesaian. Hasil penelitian tersebut menunjukkan bahwa pembelajaran *heuristik* dengan pendekatan *strategic thinking* berbantuan aplikasi *Desmos* efektif digunakan untuk meningkatkan kemampuan pemecahan masalah matematis dan *persistence* siswa.

Kata Kunci: Aplikasi *Desmos*, Pembelajaran *Heuristik*, *Persistence*, Kemampuan Pemecahan Masalah Matematis

ABSTRACT

Dina Suprianti, 1202050035 (2024). "Heuristic Learning Using a Strategic thinking Approach Assisted by the Desmos Application in Improving Students' Mathematical Problem Solving Ability and Persistence"

Heuristic learning with a strategic thinking approach is needed to improve students' mathematical problem solving abilities and persistence. This research aims to improve students' mathematical problem solving abilities and persistence through the application of heuristic learning with a strategic thinking approach assisted by the Desmos application. The research method used is quasi-experimental with non-equivalent control group design. The results of this research show several main findings: (1) knowing the trajectory of the heuristic learning process with a strategic thinking approach assisted by the Desmos application in improving students' mathematical problem solving abilities and persistence, (2) there are differences in increasing mathematical problem solving abilities between students who carry out heuristic learning with strategic thinking approach assisted by the Desmos application, compared to students who were given expository learning, (3) there was a difference in the achievement of increasing mathematical problem solving abilities between students who carried out heuristic learning with a strategic thinking approach assisted by the Desmos application compared to students given expository learning based on gender, 4). there is a difference in the increase in persistence between students who carry out heuristic learning with a strategic thinking approach assisted by the Desmos application compared to students who are given expository learning, and (5) obstacles and barriers for students in solving mathematical problem solving ability problems are found in the indicator of re-checking the solution. The results of this research show that heuristic learning with a strategic thinking approach assisted by the Desmos application is effectively used to improve students' mathematical problem solving abilities and persistence.

Keywords: Desmos Application, Heuristic Learning, Persistence, Matemactical Problem Solving Ability.