

ABSTRAK

Ahmad Rifai Siregar. Pengaruh Model Pembelajaran Problem Based Learning Terhadap Peningkatan Kemampuan Berpikir Kritis Matematis dan Kemandirian Belajar Siswa di MAN 1 Medan.

Tujuan penelitian ini untuk mengetahui: (1) perbedaan peningkatan kemampuan berpikir kritis matematis antara siswa yang diberi problem based learning dengan siswa yang diberi pembelajaran biasa; (2) interaksi antara pembelajaran dengan kemampuan awal matematika siswa terhadap peningkatan kemampuan berpikir kritis matematis siswa; (3) perbedaan peningkatan kemandirian belajar antara siswa yang diberi problem based learning dengan siswa yang diberi pembelajaran biasa; (4) interaksi antara pembelajaran dengan kemampuan awal matematika siswa terhadap peningkatan kemandirian belajar siswa. Populasi dalam penelitian ini adalah seluruh siswa kelas X MAN 1 Medan dan sampel dalam penelitian ini adalah siswa kelas X-9 dan X-6 dengan mengambil dua kelas (kelas eksperimen dan kelas kontrol) sebanyak 60 orang siswa. Instrumen yang digunakan terdiri dari tes kemampuan berpikir kritis matematis dan skala kemandirian belajar. Data dianalisis dengan uji ANAVA dua jalur. Berdasarkan hasil analisis tersebut diperoleh yaitu: (1) peningkatan kemampuan berpikir kritis matematis siswa yang diberi problem based learning lebih baik dari pada siswa yang diberi pembelajaran biasa; (2) tidak terdapat interaksi antara pembelajaran dengan kemampuan awal matematika siswa terhadap peningkatan kemampuan berpikir kritis matematis siswa; (3) peningkatan kemandirian belajar siswa yang diberi problem based learning lebih baik dari pada siswa yang diberi pembelajaran biasa; (4) tidak terdapat interaksi antara pembelajaran dengan kemampuan awal matematika siswa terhadap peningkatan kemandirian belajar siswa. Berdasarkan hasil penelitian ini, disarankan agar model pembelajaran problem based learning dijadikan alternatif bagi guru untuk meningkatkan kemampuan berpikir kritis matematis dan kemandirian belajar siswa.

Kata Kunci: Problem Based Learning, Berpikir Kritis, Kemandirian Belajar.



ABSTRACT

Ahmad Rifai Siregar. The Effect of Problem Based Learning Model on Improving Mathematical Critical Thinking Ability and Student Learning Independence in MAN 1 Medan. 2024.

The objectives of this research were to determine: (1) the difference in the improvement of mathematical critical thinking abilities between students who received problem-based learning and those who received conventional learning; (2) the interaction between learning methods and students' initial mathematical abilities towards the improvement of students' mathematical critical thinking skills; (3) the difference in the improvement of learning independence between students who received problem-based learning and those who received conventional learning; (4) the interaction between learning methods and students' initial mathematical abilities towards the improvement of students' learning independence. The population of this study comprised all tenth-grade students at MAN 1 Medan, with a sample consisting of students from classes X-9 and X-6, involving two classes (experimental and control groups) totaling 60 students. The instruments used consisted of mathematical critical thinking ability tests and learning independence scales. The data were analyzed using two-way ANOVA. Based on the analysis, the following results were obtained: (1) the improvement in mathematical critical thinking abilities of students who received problem-based learning was better than those who received conventional learning; (2) there was no interaction between learning methods and students' initial mathematical abilities towards the improvement of students' mathematical critical thinking skills; (3) the improvement in learning independence of students who received problem-based learning was better than those who received conventional learning; (4) there was no interaction between learning methods and students' initial mathematical abilities towards the improvement of students' learning independence. Based on these research findings, it is recommended that the problem-based learning model be used as an alternative approach for teachers to enhance students' mathematical critical thinking abilities and learning independence.

Keywords: Problem-Based Learning, Critical Thinking, Learning Independence.

