

ABSTRAK

MUHAMMAD FADHIL HIDAYAT SIREGAR. Analisis Kemampuan Pemecahan Masalah dan Kemandirian Belajar Berbasis PBL Berbantuan IT di SMP Islam Terpadu Nurul `Azizi. Tesis. Medan : Program Pendidikan Matematika Pascasarjana Universitas Negeri Medan. 2023.

Penelitian ini bertujuan untuk menganalisis : 1) kevalidan, kepraktisan, dan keefektifan media pembelajaran berbasis *Problem Based Learning* berbantuan IT yaitu google sites pada pembelajaran matematika; 2) Untuk mengetahui apakah kemampuan pemecahan masalah siswa yang diberi model pembelajaran problem based learning lebih baik daripada siswa yang diberi pembelajaran biasa pada kelas VIII SMP Islam Terpadu Nurul `Azizi; 3) Untuk mengetahui Apakah kemandirian belajar siswa yang diberi model pembelajaran problem based learning lebih baik daripada siswa yang diberi pembelajaran biasa pada kelas VIII SMP Islam Terpadu Nurul `Azizi; 4) Untuk melihat Apakah terdapat interaksi antara pembelajaran dengan kemampuan awal matematika siswa terhadap kemampuan pemecahan masalah; 5) Untuk melihat Apakah terdapat interaksi antara pembelajaran dengan kemampuan awal matematika siswa terhadap kemandirian belajar. Metode yang digunakan dalam penelitian ini adalah *quasi experiment* (eksperimen semu). Adapun hasil dari penelitian ini didapatkan bahwa 1) Kemampuan pemecahan masalah siswa yang diberi model pembelajaran *Problem Based Learning* lebih baik daripada model pembelajaran biasa pada kelas VIII SMP Islam Terpadu Nurul `Azizi; 2) Kemandirian belajarsiswa yang diberi model pembelajaran *Problem Based Learning* lebih baik daripada pembelajaran biasa pada kelas VIII SMP Islam Terpadu Nurul `Azizi; 3) Terdapat interaksi antara kemampuan awal matematika dan model pembelajaran terhadap kemampuan pemecahan masalah siswa kelas VIII SMP Islam Terpadu Nurul `Azizi; 3) Tidak terdapat interaksi antara kemampuan awal matematika dan model pembelajaran terhadap kemandirian belajar siswa pada kelas VIII SMP Islam Terpadu Nurul `Azizi.

Kata Kunci : IT, Kemampuan Pemecahan Masalah, Kemandirian Belajar, *Problem Based Learning*, Lingkaran

ABSTRAK

MUHAMMAD FADHIL HIDAYAT SIREGAR. Analysis of Problem Solving Ability and Independent Learning Based on IT Assisted PBL at Nurul `Azizi Integrated Islamic Middle School. Thesis. Medan :Medan State University Postgraduate Mathematics Education Program. 2023.

This research aims to analyze: 1) the validity, practicality and effectiveness of IT-assisted Problem Based Learning-based learning media, namely Google Sites in mathematics learning; 2) To find out whether the problem solving abilities of students who were given the problem based learning model were better than students who were given ordinary learning in class VIII of the Nurul `Azizi Integrated Islamic Middle School; 3) To find out whether the learning independence of students who are given the problem based learning model is better than students who are given ordinary learning in class VIII of the Nurul `Azizi Integrated Islamic Middle School; 4) To see whether there is an interaction between learning and students' initial mathematics abilities on problem solving abilities; 5) To see whether there is an interaction between learning and students' initial mathematics abilities on learning independence. The method used in this research was a quasi experiment. The results of this research showed that 1) The problem solving abilities of students who were given the Problem Based Learning learning model were better than the normal learning model in class VIII of Nurul `Azizi Integrated Islamic Middle School; 2) The learning independence of students who are given the Problem Based Learning learning model is better than ordinary learning in class VIII of Nurul `Azizi Integrated Islamic Middle School; 3) There is an interaction between initial mathematics abilities and learning models on the problem solving abilities of class VIII students at Nurul `Azizi Integrated Islamic Middle School; 3) There is an interaction between initial mathematics abilities and learning models on student learning independence in class VIII of Nurul `Azizi Integrated Islamic Middle School.

Keywords :*IT, Problem Solving Skill, Learning Independence, Problem Based Learning, Circle*