

ABSTRAK

Ahmad Tohau 2024. Pengaruh Model *Problem Solving* Terhadap Kemampuan Koneksi Matematis dan Motivasi Belajar Pada Materi Matriks. Penelitian dibawah bimbingan **Ariyanti Jalal, S.Pd., M.Pd.** dan **Dr. Ida Kurnia Waliyanti, S.Si., M.Sc.**

Penelitian ini bertujuan untuk (1). Mengetahui motivasi belajar siswa setelah diterapkan model *problem solving*, (2). Mengetahui kemampuan koneksi matematis siswa setelah diterapkan model *problem solving*, (3). Mengetahui model *problem solving* dapat berpengaruh derhadap motivasi belajar, dan (4). Mengetahui pengaruh model *problem solving* terhadap kemampuan koneksi matematis siswa

Jenis penelitian yang menggunakan adalah *Quasi Ekspereimen* tipe *one group pretest-posttest desigen* dengan satu kelompok eksperimen. Sampel penelitian ini yaitu kelas IX IPA III SMA Negeri 10 Kota Ternate yang berjumlah 36 siswa dan sebagai kelas eksperimen. Teknik pengumpulan data yang digunakan dalam penelitian ini instrumen tes yang diberikan sebelum menerapkan model *problem solving* dan setelah setelah menerapkan model *problem solving*, instrumen non tes diberikan setelah menerapkan model *problem solving*, dan dokumentasi. Peneliti menggunakan teknik analisis data deskriptif yang mencakup mean, nilai minumun, nilai maksimum dan analisis data inferensial yaitu uji normalitas dan uji hipotesis.

Hasil analisis deskriptif menunjukkan bahwa siswa memperoleh nilai rata-rata 94,60 dengan kualifikasi tinggi untuk angket motivasi belajar setelah di terapkan model *problem solving*. nilai rata-rata kemampuan koneksi matematis siswa untuk *pre-test* adalah 28,20 yang bekualifikasi rendah dan *post-test* adalah 78,57 yang berkualifikasi tinggi. Pengujian hipotesis Motivasi Belajar menunjukkan bahwa nilai F_{hitung} lebih besar dari F_{tabel} yaitu 6,14 dimana $6,14 > 3,34$ artinya H_0 ditolak dan H_a diterima atau hipotesis diterima, Selain itu pengujian hipotesis kemampuan koneksi matematis siswa menunjukkan bahwa nilai $sig\ 0,001 < \alpha = 0,05$ maka hipotesis di terima. Berdasarkan data di atas bahwa model *Problem Solving* berpengaruh terhadap kemampuan koneksi matematis dan motivasi belajar.

Kata Kunci: Model Problem Solving, Koneksi Matematis, Motivasi Belajar, Matriks.

ABSTRACT

Ahmad Tohau 2024. The Influence of the Problem Solving Model on Mathematical Connection Ability and Learning Motivation in Matrix Material. Research under the guidance of **Ariyanti Jalal, S.Pd., M.Pd.** and **Dr. Ida Kurnia Waliyanti, S.Si., M.Sc.**

This research aims to (1). Knowing students' learning motivation after applying the problem solving model, (2). Knowing students' mathematical connection abilities after applying the problem solving model, (3). Knowing problem solving models can influence learning motivation, and (4). Knowing the influence of problem solving models on students' mathematical connection abilities

The type of research used is Quasi Experiment type one group pretest-posttest design with one experimental group. The sample for this research was class IX Science III SMA Negeri 10 Ternate City, totaling 36 students and as an experimental class. The data collection techniques used in this research were test instruments given before applying the problem solving model and after applying the problem solving model, non-test instruments given after applying the problem solving model, and documentation. Researchers use descriptive data analysis techniques which include mean, minimum value, maximum value and inferential data analysis, namely normality testing and hypothesis testing.

The results of the descriptive analysis show that students obtained an average score of 94.60 with high qualifications for the learning motivation questionnaire after applying the problem solving model. The average score for students' mathematical connection abilities for the pre-test was 28.20, which was low qualification, and the post-test was 78.57, which was high qualification. Testing the Learning Motivation hypothesis shows that the F_{count} value is greater than F_{table} , namely 6.14, where $6.14 > 3.34$ means that H_0 is rejected and H_a is accepted or the hypothesis is accepted. In addition, hypothesis testing for students' mathematical connection abilities shows that the sig value is $0.001 < \alpha = 0.05$ then the hypothesis is accepted. Based on the data above, the Problem Solving model influences mathematical connection abilities and learning motivation.

Keywords: Problem Solving Model, Mathematical Connection, Learning Motivation, Matrix.