

## ABSTRAK

### PENGARUH MODEL *DISCOVERY LEARNING* TERHADAP PEMAHAMAN KONSEP DAN KEMAMPUAN KONEKSI MATEMATIKA SISWA MTS SWASTA NURUL AMALIYAH TANJUNG MORAWA

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Penelitian ini bertujuan untuk mengetahui 1) pengaruh model *Discovery Learning* terhadap pemahaman konsep dan kemampuan koneksi matematika dan 2) melihat perbedaan model *Discovery Learning* dan pembelajaran langsung terhadap pemahaman konsep dan kemampuan koneksi matematika. Populasi penelitian adalah siswa kelas VIII MTs Swasta Nurul Amaliyah Tanjung Morawa tahun ajaran 2019/2020 yang berjumlah 113 orang. Pengambilan sampel dilakukan dengan *simple random sampling* dan terpilihlah kelas VIII-2 sebagai kelas eksperimen dan VIII-3 sebagai kelas kontrol masing-masing berjumlah 29 siswa. Penelitian ini merupakan penelitian *quasi eksperimental*. Instrumen yang digunakan berupa tes uraian yang telah valid dan reliabilitas. Rata-rata pemahaman konsep dan kemampuan koneksi menggunakan model *Discovery Learning* adalah (81.90%) dan (83.45%) sedangkan rata-rata pemahaman konsep dan kemampuan koneksi menggunakan pembelajaran langsung (74.31%) dan (75.34%). Analisis data dilakukan dengan Uji Analisis Regresi Linier Sederhana dan Uji t dengan menggunakan program SPSS Versi 20. Seluruh data berdistribusi normal dan homogen. Berdasarkan analisis data dengan Uji Analisis Regresi Linier Sederhana dengan taraf signifikan 0.05 dengan mendapat hasil tes pemahaman konsep dan kemampuan koneksi diperoleh  $t_{hitung} > t_{tabel} = 3.017 > 2.051$  dan  $4.189 > 2.051$ , sehingga dapat disimpulkan bahwa ada pengaruh model *Discovery Learning* terhadap pemahaman konsep dan kemampuan koneksi matematika. Selanjutnya dengan menggunakan uji t diperoleh nilai Sig (2 tailed) sebesar  $0.000 < 0.05$  dapat disimpulkan bahwa terdapat perbedaan model *Discovery Learning* dan pembelajaran langsung terhadap pemahaman konsep dan kemampuan koneksi matematika.

**Kata Kunci:** Model *Discovery Learning*, Pemahaman Konsep, Kemampuan Koneksi

## ABSTRACT

### THE EFFECT OF DISCOVERY LEARNING MODEL ON UNDERSTANDING CONCEPT AND CONNECTION ABILITY MATHEMATICS STUDENTS MTS PRIVATE NURUL AMALIYAH TANJUNG MORAWA

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This study aims to determine 1) the effect of the Discovery Learning model on the understanding of concepts and the ability of mathematical connections and 2) see the differences in the Discovery Learning model and direct learning of understanding the concepts and abilities of mathematical connections. The study population was students of class VIII Private MTs Nurul Amaliyah Tanjung Morawa in the academic year 2019/2020, amounting to 113 people. Sampling was done by simple random sampling and class VIII-2 was chosen as the experimental class and VIII-3 as the control class each amounted to 29 students. This research is a quasi experimental research. The instrument used was a valid uraian test and reliability. The average understanding of concepts and connection skills using the Discovery Learning model is (81.90%) and (83.45%) while the average understanding of concepts and connection skills using direct learning (74.31%) and (75.34%). Data analysis was performed using the Simple Linear Regression Analysis Test and t Test using SPSS Version 20. All data were normally distributed and homogeneous. Based on data analysis with Simple Linear Regression Analysis Test with a significance level of 0.05 by getting the test results of understanding concepts and connection capabilities obtained  $t_{count} > t_{tabel} = 3.017 > 2.051$  and  $4.189 > 2.051$ , so it can be concluded that there is an influence of the Discovery Learning model on the understanding of concepts and connection capabilities mathematics. Furthermore, by using the t test the Sig (2 tailed) value of 0,000 < 0.05 can be concluded that there are differences in the Discovery Learning model and direct learning of understanding the concepts and ability of mathematical connections.

**Keywords:** *Discovery Learning Model, Concept Understanding, Connection Ability*