

## ABSTRAK

**Putri Amaliyani Damanik, NIM 4173111062 (2022). Pengaruh Pendekatan Saintifik Berbantuan Focusky Terhadap Motivasi Belajar dan Kemampuan Penalaran Matematis Siswa SMP Pada Materi Segiempat.**

Penelitian ini bertujuan untuk mengetahui apakah terdapat pengaruh dari pendekatan saintifik berbantuan focusky terhadap motivasi belajar dan kemampuan penalaran matematis siswa SMP pada materi segiempat. Penelitian ini termasuk dalam kategori quasi eksperimen. Populasi dalam penelitian ini adalah seluruh siswa kelas VII SMP Negeri 1 Lubuk Pakam T.A 2021/2022. Dalam penelitian ini terpilih dua kelas yang akan dijadikan sampel yaitu kelas VII-A terpilih sebagai kelas eksperimen dan kelas VII-U terpilih sebagai kelas kontrol melalui teknik *purposive sampling* yang masing-masing kelas terdiri dari 30 orang. Pada kelas eksperimen diberikan pengajaran dengan pembelajaran menggunakan pendekatan saintifik berbantuan focusky, sedangkan pada kelas kontrol diberikan pengajaran dengan pembelajaran menggunakan pendekatan ekspositori. Instrument penelitian yang digunakan adalah angket motivasi belajar dan tes berbentuk soal uraian kemampuan penalaran matematis yang telah dinyatakan valid. Teknik analisis data yang digunakan yaitu uji prasyarat analisis, uji kesamaan rata-rata, uji perbedaan rata-rata dua kelompok berpasangan dan uji hipotesis. Uji hipotesis menggunakan uji *independent samples t test* dan uji manova. Berdasarkan hasil uji hipotesis motivasi belajar diperoleh nilai signifikansinya 0,008 ( $0,008 < 0,05$ ) dan  $t_{hitung} > t_{tabel}$  ( $2,764 > 2,045$ ) hal ini menunjukkan bahwa terdapat pengaruh pendekatan saintifik berbantuan focusky terhadap motivasi belajar siswa SMP pada materi segiempat. Hasil uji hipotesis kemampuan penalaran matematis diperoleh nilai signifikansinya 0,001 ( $0,001 < 0,05$ ) dan  $t_{hitung} > t_{tabel}$  ( $3,340 > 2,045$ ) hal ini menunjukkan bahwa terdapat pengaruh pendekatan saintifik berbantuan focusky terhadap kemampuan penalaran matematis siswa SMP pada materi segiempat dan hasil uji manova diperoleh nilai signifikansi *Pillai's Trace*, *Wilks' Lambda*, *Hotelling's Trace* dan *Yoy's Largets Root* sebesar 0,001 ( $0,001 < 0,05$ ) yang artinya bahwa terdapat pengaruh pendekatan saintifik berbantuan focusky terhadap motivasi belajar dan kemampuan penalaran matematis siswa siswa SMP pada materi segiempat.

Kata Kunci: Pendekatan Saintifik, *Focusky*, Motivasi Belajar, Kemampuan Penalaran Matematis

## ABSTRACT

**Putri Amaliyani Damanik, NIM 4173111062 (2022). The Effect of Focusky Assisted Scientific Approach on Learning Motivation and Mathematical Reasoning Abilities of Junior High School Students on Quadrilateral Material.**

This study aims to determine whether there is an effect of the scientific approach assisted by focusky on the learning motivation and mathematical reasoning abilities of junior high school students on quadrilateral material. This research is included in the quasi-experimental category. The population in this study were all seventh grade students of SMP Negeri 1 Lubuk Pakam T.A 2021/2022. In this study, two classes were selected as samples, namely class VII-A was selected as the experimental class and class VII-U was selected as the control class through purposive sampling technique, each class consisted of 30 people. The experimental class was given teaching by learning using a scientific approach with help of focusky, while the control class was given teaching by learning using an expository approach. The research instrument used was a learning motivation questionnaire and a test in the form of a description of mathematical reasoning abilities that had been declared valid. The data analysis technique used is the analysis prerequisite test, the average similarity test, the two-group average difference test in pairs and hypothesis testing. Hypothesis testing using independent samples t test and manova test. Based on the result of the hypothesis test of learning motivation, the significance value of  $0,008$  ( $0,008 < 0,05$ ) and  $t_{hitung} > t_{tabel}$  ( $2,764 > 2,045$ ) this indicates that there is an effect of the scientific approach assisted by focusky on the learning motivation of junior high school students on quadrilateral material. The result of the hypothesis test of mathematical reasoning ability obtained a significance value of  $0,001$  ( $0,001 < 0,05$ ) dan  $t_{hitung} > t_{tabel}$  ( $3,340 > 2,045$ ) this indicates that there is an effect of the scientific approach by focusky on mathematical reasoning ability of junior high school students on quadrilateral material and results of the MANOVA test obtained a significance value of *Pillai's Trace*, *Wilks' Lambda*, *Hotelling's Trace* dan *Yoy's Targets Root* of  $0,001$  ( $0,001 < 0,05$ ) which means that there is an effect of the scientific approach assisted by focusky on students learning motivation and mathematical reasoning abilities of junior high school students on quadrilateral material.

Keywords: Scientific Approach, *Focusky*, Learning Motivation, Ability Mathematical Reasoning