

ABSTRACT

Moh. Adnan I. Talani, 2024. Improving Students' Mathematical Reasoning Ability Through the Application of Problem-Based Learning Model on Matrix Material at SMAN 1 Pinogaluman. Undergraduate Thesis. Mathematics Education Study Program, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Negeri Gorontalo. The supervisors: (1) Prof. Dr. Evi P. Hulukat, M.Pd. (2) Drs. Perry Zakaria, M.Pd.

This study aims to improve students' mathematical reasoning skills on matrix material through the application of the problem-based learning model. The classroom action research was conducted at SMAN 1 Pinogaluman in the academic year 2023/2024. The subjects of this study were students of Grade XI MIA-1 with a total of 30 persons. Data collection techniques in this study were observation and tests. This research lasted for 2 cycles. The indicators of mathematical reasoning ability in this study are: (1) making conjectures; (2) applying mathematical manipulations; (3) constructing evidence for the validity of the solution; (4) determining patterns or properties of a mathematical phenomenon to make generalizations; (5) drawing conclusions. Based on the observation, the average teacher activity increased from 61.61% to 82.14% with an increase of 20.53%. In addition, the average student activity increased from 58.75% to 81.25% with an increase of 22.5%. Then, the average test scores of students' mathematical reasoning skills increased from 63% to 87% with an increase of 24%. From the results of this study, it can be concluded that students' mathematical reasoning skills on matrix material increased after the activity using the problem-based learning model.

Keywords: Problem-Based Learning, Reasoning Ability, Matrix



LEMBAR PENGESAHAN SKRIPSI

Skripsi yang berjudul “Meningkatkan Kemampuan Penalaran Matematis Siswa Melalui Penerapan Model *Problem Based Learning* Pada Materi Matriks di SMAN 1 Pinogaluman”

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Telah diperiksa dan disetujui

Hari/Tanggal : Selasa, 2 Januari 2024

Waktu : 13.00 – 14.30 WITA

Tempat : Ruang Sidang Matematika/Via Zoom Meet

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