ANALISIS PEMAHAMAN KONSEP DAN ALGORITMA MATEMATIS SISWA DALAM PEMBELAJARAN MATEMATIKA DENGAN PENERAPAN MODEL *REALISTIC MATHEMATIC EDUCATION (*RME) BERBANTUAN *SOFTWARE ALGEBRATOR*

Reynhard Haryman Pasaribu

ABSTRAK

Permasalahan konsep dan algoritma matematis yang semakin dituntut dari peserta didik untuk lebih memahami pelajaran matematika. Penelitian ini bertujuan untuk mendeskripsikan Kemampuan pemahaman konsep dan algoritma matematis siswa serta menganalisis kesulitan yang dialami siswa dalam pemahaman konsep dan algoritma pada pembelajaran matematika setelah dilakukan proses pembelajaran dengan penerapan model *realistic mathematic education* (RME) berbantuan *software algebrator*. Subyek penelitian adalah siswa kelas X Mia 2 SMA Swasta ASSISI Siantar yang berjumlah 31 siswa. Instrumen penelitian adalah tes kemampuan pemahaman konsep, algoritma matematis dan pedoman wawancara. Analisis data dilakukan dengan model Miles dan Huberman. Hasil penelitian menunjukkan: (1) Kemampuan pemahaman konsep matematis siswa pada materi sistem persamaan linear Tiga variabel pada siswa sma assisi siantar kelas x mia 2 tergolong dalam kategori Sedang, hal ini telihat dari hasil perolehan rerata nilai dari setiap indicator yakni 59,43. (2) Kemampuan Algoritma matematis siswa sma assisi siantar kelas x mia 2 pada materi sistem persamaan linear Tiga variabel tergolong pada tingkat kemampuan Sedang hal ini terlihat dari hasil perolehan nilai pada setiap inikator masih berada pada kategori rerata 55,2. (3) Dalam menyelesaikan tes kemampuan Pemahaman konsep pada pembelajaran matematika dengan model pembelajaran Realistic Mathematic Education Berbantuan Software Algebrator siswa mengalami kesulitan dalam memahami konsep, menerapkan prinsip, dan juga kesulitan dalam penerapan operasi. (4) Dalam menyelesaikan tes kemampuan Algoritma matematis pada pembelajaran matematika dengan model pembelajaran Realistic Mathematic Education Berbantuan Software Algebrator siswa mengalami kesulitan dalam memahami konsep, menerapkan prinsip, dan juga kesulitan dalam penerapan operasi.

Kata-kata kunci :Analisis, Pemahaman Konsep Matematis, Algoritma Matematis, Kesulitan Siswa, *Realistic Mathematic Education*, Algebrator

ANALYSIS OF CONCEPT UNDERSTANDING AND MATHEMATIC ALGORITHM STUDENTS IN MATHEMATICS LEARNING WITH THE APPLICATION OF MODEL THE REALISTIC MATHEMATIC EDUCATION (RME) ALGEBRATOR SOFTWARE ASSISTANT

Reynhard Haryman Pasaribu

ABSTRACT

Problems with mathematical concepts and algorithms are increasingly being demanded from students to better understand mathematics lessons. This study aims to describe the ability of students to understand mathematical concepts and algorithms as well as to analyze the difficulties experienced by students in understanding concepts and algorithms in mathematics learning after the learning process is carried out with the application of realistic mathematical education (RME) models assisted by algebrator software. The subjects of the study were students of class X Mia 2 SMA Swasta ASSISI Siantar, totaling 31 students. The research instrument is a test of the ability to understand concepts, mathematical algorithms and interview guidelines. Data analysis was carried out using the Miles and Huberman model. The results showed: (1) The students' ability to understand mathematical concepts on the material of a system of linear equations. Three variables in the Assisi Siantar High School students in class x mia 2 belong to the Medium category, this can be seen from the results of the average score of each indicator, worth in 59.43. (2) Ability of Mathematical Algorithm students of SMA Assisi Siantar class x mia 2 on the material of linear equation system. Three variables are classified at the moderate level of ability, this can be seen from the results of the score on each indicator that is still in the average category of 55.2. (3) In completing the ability test for understanding concepts in mathematics learning with the Realistic Mathematical Education learning model assisted by Algebrator Software, students have difficulty understanding concepts, applying principles, and also difficulties in implementing operations. (4) In completing the mathematical algorithm ability test in mathematics learning with the Realistic Mathematical Education learning model with the help of Algebrator Software, students have difficulty understanding concepts, applying principles, and also difficulties in implementing operations.

Keywords: Analysis, Understanding Mathematical Concepts, Mathematical Algorithms, Student Difficulties, Realistic Mathematical Education, Algebrators