

ABSTRAK

APRIZAL HARAHAHAP. Perbedaan Peningkatan Kemampuan Representasi dan Disposisi Matematis Siswa Yang Diberi Pendekatan Realistik Berbantuan *Geogebra* dan Kontekstual Di SMP Negeri 1 Angkola Timur. Tesis Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan, 2016.

Tujuan dari penelitian ini untuk mengetahui: (1) perbedaan peningkatan kemampuan representasi matematis siswa antara yang diberi pendekatan realistik berbantuan *geogebra* dan kontekstual, (2) perbedaan peningkatan disposisi matematis siswa antara yang diberi pendekatan realistik berbantuan *geogebra* dan kontekstual, (3) Aktivitas belajar siswa selama pendekatan realistik berbantuan *geogebra* dan kontekstual, (4) Proses jawaban siswa dalam menyelesaikan masalah pada pendekatan realistik berbantuan *geogebra* dan kontekstual. Penelitian ini dilaksanakan di SMP Negeri 1 Angkola Timur sebanyak 60 siswa. Penelitian ini merupakan suatu studi eksperimen dengan desain penelitian *pre-test-post-test control group design*. Populasi dalam penelitian ini adalah seluruh siswa kelas VII (Tujuh) dengan mengambil sampel dua kelas (kelas eksperimen 1 dan kelas eksperimen 2) melalui teknik *purposive sampling*. Instrumen yang digunakan terdiri dari: tes kemampuan representasi matematis dan angket disposisi matematis siswa. Instrumen tersebut dinyatakan telah memenuhi syarat validitas isi, serta koefisien reliabilitas. Data dianalisis dengan uji ANACOVA. Sebelum digunakan uji ANACOVA terlebih dahulu dilakukan uji normalitas dalam penelitian dan homogenitas dalam penelitian ini dengan taraf signifikan 5%. Berdasarkan hasil analisis tersebut diperoleh hasil penelitian yaitu: (1) Perbedaan peningkatan kemampuan representasi matematis siswa yang memperoleh pendekatan realistik berbantuan *geogebra* lebih tinggi daripada siswa yang memperoleh pendekatan kontekstual, (2) Perbedaan peningkatan disposisi matematis siswa yang memperoleh pendekatan realistik berbantuan *geogebra* lebih tinggi daripada siswa yang memperoleh pendekatan kontekstual, (3) Proses jawaban siswa dalam penyelesaian soal-soal kemampuan representasi matematis yang diberi pendekatan realistik berbantuan *geogebra* lebih baik dan bervariasi dibanding dengan siswa yang diberi pendekatan kontekstual. (4) Aktivitas siswa terhadap pendekatan realistik berbantuan *geogebra* dan pendekatan kontekstual dalam kategori aktif dengan persentase lebih dari 80%

Kata Kunci: Pendekatan Realistik Berbantuan *Geogebra*, Pendekatan Kontekstual, Kemampuan Representasi dan Disposisi matematis Siswa.

ABSTRACT

APRIZAL HARAHAHAP. Differences Increased Student Representation and Its Disposition Mathematically Assisted Realistic Approach Given GeoGebra and Contextual In The Junior High School Negeri 1 Angkola Timur. Thesis Mathematics Education Graduate Medan University, 2016.

The purpose of this study was to determine: (1) the difference increased ability mathematical representation of students between the given realistic approach aided GeoGebra and contextual, (2) differences in the increase in the disposition of mathematical students, among which were given a realistic approach aided GeoGebra and contextual, (3) Student learning activities for a realistic approach aided GeoGebra and contextual, (4) the process of the students' answers in resolving problems in the GeoGebra aided realistic approach and contextual. The research was conducted in the Junior High School Negeri 1 Angkola Timur. as many as 60 students. This study is an experimental study research design of pre-test-post-test control group design. The population in this study were all students of class VII (seven) by taking a sample of two classes (class 1 and class experiment experiment 2) through purposive sampling technique. The instrument used consisted of: a mathematical representation ability tests and questionnaires students' mathematical disposition. The instrument was declared eligible content validity and reliability coefficient. Data were analyzed by ANACOVA. Before use test ANACOVA first tested in research normality and homogeneity in this study with a significant level of 5%. Based on the results of the analysis obtained by the research are: (1) The difference increased ability mathematical representation of students who obtain realistic approach aided GeoGebra higher than students who obtain a contextual approach, (2) The difference in the increase in the disposition of mathematical students who obtain realistic approach aided GeoGebra higher than students who obtain a contextual approach, (3) the process of the students' answers in solving problems of the mathematical representation capability realistic approach aided by GeoGebra better and more varied than the students who were given a contextual approach. (4) Activity student against assisted GeoGebra realistic approach and contextual approach in the active category with a percentage of more than 80%

Keywords: Assisted Realistic Approach GeoGebra, Contextual Approach, Ability and Disposition Mathematically Student Representation.