

## ABSTRAK

**KHAIRANI SYAHFITRI, Perbedaan Kemampuan Komunikasi Dan Disposisi Matematis Siswa yang diberi Model Pembelajaran Kontekstual berbantuan *Geogebra* dengan Model Pembelajaran Kooperatif berbantuan *Geogebra*.** Tesis. Medan. Program Studi pendidikan Matematika Pascasarjana Universitas Negeri Medan. 2021

Penelitian ini bertujuan Untuk : (1) Menganalisis perbedaan disposisi matematis antara siswa yang diberi model pembelajaran kontekstual berbantuan *Geogebra* dengan siswa yang diberi model pembelajaran kooperatif berbantuan *Geogebra* di SMK Harapan Mekar 1 Medan, (2) menganalisis interaksi antara pembelajaran dan kemampuan awal matematika (tinggi, sedang, rendah) siswa terhadap peningkatan kemampuan komunikasi matematis siswa di SMK Harapan Mekar 1 Medan, (3) menganalisis interaksi antara pembelajaran dan kemampuan awal matematika (tinggi, sedang, rendah) siswa terhadap peningkatan disposisi matematis siswa di SMK Harapan Mekar 1 Medan. Populasi penelitian ini adalah seluruh siswa SMK Harapan Mekar 1 Medan jurusan Mekanik Otomotif dan Teknik Komputer . Sampel diambil secara acak dari 6 kelas X SMK Harapan Mekar 1 Medan terpilihlah siswa sebagai sampel sebanyak 2 kelas yaitu kelas X-2 sebagai kelas eksperimen I yang diberi model pembelajaran kontekstual berbantuan *Geogebra* dan kelas XI-3 sebagai kelas eksperimen 2 yang diberi model pembelajaran kooperatif berbantuan *Geogebra*. Masing-masing jumlah siswa kelas X-2, dan X-3 adalah sebanyak 32 siswa. Data dianalisis dengan analisis statistik deskriptif melalui uji-t dan anava dua jalur. Hasil penelitian ini menunjukkan bahwa: (1) Terdapat perbedaan kemampuan komunikasi matematis antara siswa yang diberi model pembelajaran kontekstual berbantuan *Geogebra* dengan siswa yang diberi model pembelajaran *STAD* berbantuan *Geogebra*, (2) terdapat perbedaan disposisi matematis antara siswa yang diberi model pembelajaran kontekstual berbantuan *Geogebra* dengan siswa yang diberi model pembelajaran *STAD* berbantuan *Geogebra* (3) terdapat interaksi antara pembelajaran dan kemampuan awal matematika (tinggi, sedang, rendah) siswa terhadap peningkatan komunikasi matematis siswa , (4) terdapat interaksi antara pembelajaran dan kemampuan awal matematika (tinggi, sedang, rendah) siswa terhadap peningkatan disposisi matematis siswa.

**Kata Kunci:** Model Pembelajaran Kontekstual, Model Pembelajaran *STAD*, Kemampuan Komunikasi, Kemampuan Disposisi, *Geogebra*



## ABSTRACT

**KHAIRANI SYAHFITRI, Differences in Communication Ability and Mathematical Disposition of Students who are given a-assisted Contextual- *Geogebra* *Geogebra* Learning Model with assisted Cooperative Learning Model .** Thesis. Medan. Postgraduate Mathematics Education Study Program, State University of Medan. 2021

This study aims to: (1) analyze the differences in mathematical dispositions between students who are given a contextual learning model assisted *Geogebra* by and students who are given a model of cooperative learning assisted by *Geogebra* at SMK Harapan Mekar 1 Medan, (2) analyze the interaction between learning and early mathematics ability (high, moderate, low) students towards improving students' mathematical communication skills at SMK Harapan Mekar 1 Medan, (3) analyzing the interaction between learning and the initial mathematics ability (high, medium, low) of students towards improving the mathematical disposition of students at SMK Harapan Mekar 1 Medan. The population of this study were all students of SMK Harapan Mekar 1 Medan majoring in Automotive Mechanics and Computer Engineering. Samples were taken randomly from 6 class X SMK Harapan Mekar 1 Medan students were selected as a sample of 2 classes, namely class X-2 as the experimental class I which was given the contextual learning model assisted by *Geogebra* and class XI-3 as the experimental class 2 which was given the cooperative learning model assisted by *Geogebra*. The total number of students in class X-2 and X-3 is 32 students. Data were analyzed using descriptive statistical analysis through t-test and two-way ANOVA. The results of this study indicate that: (1) There are differences in mathematical communication skills between students who are given the-assisted contextual learning model *Geogebra* and those given the learning model *STAD* -assisted *Geogebra*, (2) there are differences in mathematical disposition between students who are given the-assisted contextual learning model *Geogebra* with students who are given the learning model *STAD* assisted by *Geogebra* (3) there is an interaction between learning and early mathematics abilities (high, medium, low) of students on improving students' mathematical communication, (4) there is an interaction between learning and early mathematics abilities (high, medium, low). ) students towards improving students' mathematical dispositions.

**Keywords: Contextual Learning Model Learning Model *STAD*,  
Communication Skills, Disposition Skills, *Geogebra***

