

## ABSTRAK

**ELVIARNI.** Perbedaan Kemampuan Komunikasi dan Berpikir Kreatif Matematika Siswa SMK Raksana 1 Medan yang diberi Pembelajaran Kooperatif Tipe STAD dengan Jigsaw. Tesis Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan. 2018

Kata kunci: STAD, *Jigsaw*, Komunikasi, Berpikir, Kreatif, Matematika.

Penelitian ini bertujuan untuk mengetahui: (1) apakah terdapat perbedaan kemampuan komunikasi matematika antara siswa yang mendapat pembelajaran kooperatif tipe STAD dengan tipe *Jigsaw* (2) apakah terdapat perbedaan kemampuan berpikir kreatif matematika antara siswa yang mendapat pembelajaran kooperatif tipe STAD dengan tipe *Jigsaw* (3) apakah terdapat interaksi antara pembelajaran dengan kemampuan awal matematika siswa terhadap kemampuan komunikasi matematika siswa (4) apakah terdapat interaksi antara pembelajaran dengan kemampuan awal matematika siswa terhadap kemampuan berpikir kreatif siswa, (5) bagaimana proses penyelesaian jawaban yang dibuat oleh siswa terhadap tes kemampuan komunikasi dan berpikir kreatif matematis antara pembelajaran kooperatif tipe STAD dengan *Jigsaw*. Penelitian ini merupakan penelitian kuasi eksperimen. Populasi penelitian ini siswa kelas X SMK Raksana 1 Medan. Secara acak dipilih dua kelas sebagai subjek penelitian. Kelas eksperimen 1 diberikan pembelajaran kooperatif tipe STAD dan kelas eksperimen 2 diberi pembelajaran kooperatif tipe *Jigsaw*. Instrumen yang digunakan terdiri dari: tes kemampuan komunikasi dan berpikir kreatif matematika yang dinyatakan telah memenuhi syarat validasi isi serta koefisien reliabilitas sebesar 0,799. Analisis data dilakukan dengan uji-t dan ANAVA dua jalur. Hasil penelitian menunjukkan bahwa: (1) terdapat perbedaan kemampuan komunikasi matematika antara siswa yang mendapat pembelajaran kooperatif tipe STAD dengan tipe *Jigsaw* (2) terdapat perbedaan kemampuan berpikir kreatif matematika antara siswa yang mendapat pembelajaran kooperatif tipe STAD dengan tipe *Jigsaw* (3) tidak terdapat interaksi antara pembelajaran dengan kemampuan awal matematika siswa (tinggi, sedang, rendah) terhadap kemampuan komunikasi matematika siswa (4) tidak terdapat interaksi antara pembelajaran dengan kemampuan awal matematika siswa (tinggi, sedang, rendah) terhadap kemampuan berpikir kreatif matematika siswa (5) proses penyelesaian jawaban siswa dengan menggunakan pembelajaran kooperatif tipe *Jigsaw* lebih baik dibandingkan dengan pembelajaran kooperatif tipe STAD. Dari hasil penelitian disimpulkan bahwa penerapan pembelajaran Kooperatif Tipe *Jigsaw* dapat meningkatkan kemampuan komunikasi dan berpikir kreatif matematika siswa. Berdasarkan kesimpulan ini maka diharapkan kepada guru untuk dapat menerapkan model pembelajaran kooperatif tipe *Jigsaw* untuk meningkatkan kemampuan komunikasi dan berpikir kreatif matematika siswa.

## ABSTRACT

**ELVIARNI:** Differences in Communication Skills and Mathematical Creative Thinking Students of Medan Raksana 1 Vocational High School were given STAD Cooperative Learning with Jigsaw. Thesis of Postgraduate Mathematics Education Study Program, Medan State University. 2018

Keywords: STAD, Jigsaw, Communication, Creative, Thinking, Mathematical.

This study aims to determine: (1) whether there are differences in mathematical communication skills between students who received STAD type Jigsaw cooperative learning (2) whether there were differences in mathematical creative thinking skills between students who received STAD type learning with Jigsaw type (3) whether there is an interaction between learning with students' initial mathematical abilities towards students' mathematical communication skills (4) whether there is an interaction between students' initial mathematics learning abilities and students' creative thinking abilities, (5) how the process of completing the answers made by students to communication skills and thinking mathematical creative between STAD type and Jigsaw cooperative learning. This research is a quasi-experimental study. The population of this study was the tenth grade students of SMK Raksana 1 Medan. Two classes were randomly selected as research subjects. The experimental class 1 was given STAD type cooperative learning and experimental class 2 was given Jigsaw cooperative learning. The instrument used consisted of: tests of communication skills and mathematical creative thinking which were declared to have fulfilled the requirements of content validity and reliability coefficient of 0.799. Data analysis was done by t-test and two-way ANAVA. The results showed that: (1) there were differences in mathematical communication skills between students who received STAD type Jigsaw cooperative learning (2) there were differences in mathematical creative thinking skills between students who received STAD type Jigsaw cooperative learning (3) there were no interactions between learning with students' initial mathematical abilities (high, medium, low) on students' mathematical communication skills (4) there is no interaction between students' initial mathematics learning abilities (high, medium, low) on students' mathematical creative thinking skills (5) the completion process student answers using Jigsaw cooperative learning are better than STAD type cooperative learning. From the results of the study concluded that the application of Jigsaw Cooperative learning can improve students' communication skills and creative thinking. Based on this conclusion, it is expected that teachers can apply the Jigsaw cooperative learning model to improve students' communication skills and creative thinking.