

ABSTRAK

Tengku Taufik Azhar. Perbedaan Kemampuan Komunikasi Matematis dan Motivasi Belajar Siswa SMK Tritech Informatika Medan Melalui Model *Problem Based Learning* dan Ekspositori. Tesis. Medan. Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan. 2018.

Penelitian ini bertujuan untuk: 1) mendeskripsikan dan menganalisis perbedaan kemampuan komunikasi matematis siswa yang diajarkan melalui model *problem based learning* dengan siswa yang diajarkan melalui model pembelajaran ekspositori; 2) mendeskripsikan dan menganalisis perbedaan motivasi belajar siswa yang diajarkan melalui model *problem based learning* dengan siswa yang diajarkan melalui model pembelajaran ekspositori; 3) menganalisis apakah terdapat interaksi antara kemampuan awal dengan pembelajaran terhadap kemampuan komunikasi matematis siswa; dan 4) menganalisis apakah terdapat interaksi antara kemampuan awal dengan pembelajaran terhadap motivasi belajar siswa. Penelitian ini merupakan penelitian kuasi eksperimen. Populasi penelitian ini adalah siswa SMK Tritech Informatika Medan dan sampel dalam penelitian adalah siswa kelas XII TKJ-2 dan kelas XII TKJ-3 SMK Tritech Informatika Medan Jurusan TKJ. Dari ke-2 kelas sampel terpilih, XII TKJ-3 sebagai kelas eksperimen dan XII TKJ-2 kelas sebagai kelas kontrol. Analisis statistik data dilakukan dengan ANAVA 2 Jalur. Hasil penelitian menunjukkan bahwa: 1) Terdapat perbedaan kemampuan komunikasi matematis siswa yang diajarkan melalui model *problem based learning* dengan siswa yang diajarkan melalui model pembelajaran ekspositori; 2) Terdapat perbedaan motivasi siswa yang diajarkan melalui model *problem based learning* dengan siswa yang diajarkan melalui model pembelajaran ekspositori; 3) Tidak terdapat interaksi antara model pembelajaran dan kemampuan awal matematika (KAM) siswa terhadap kemampuan komunikasi matematis siswa; dan 4) Tidak terdapat interaksi antara model pembelajaran dan kemampuan awal matematika (KAM) siswa terhadap motivasi belajar siswa.

Kata Kunci: Kemampuan Komunikasi Matematis, Motivasi Belajar, *Problem Based Learning*.

ABSTRACT

Tengku Taufik Azhar. Difference of ability Mathematical Communication Skills and Student Motivation of SMK Tritech Informatika Medan Through Problem Based Learning Model and Ekspositori. Thesis. Medan. Postgraduate Mathematics Education Program State University of Medan. 2018.

This study aims to: 1) describe and analyze differences in students' mathematical communication skills taught through problem based learning model with students taught through expository learning model; 2) to describe and analyze differences in students' learning motivation taught through a problem-based learning model with students taught through an expository learning model; 3) to analyze whether there is an interaction between initial ability and learning on students' mathematical communication ability; and 4) to analyze whether there is an interaction between initial ability and learning on student learning motivation. This study is a quasi-experimental study. The population of this study are students of SMK Tritech Informatika Medan and the sample in this research are XII TKJ-2 and XII TKJ-3 students of SMK Tritech Informatika Medan TKJ Department. From the 2 selected sample classes, XII TKJ-3 as the experimental class and the XII TKJ-2 class as the control class. Statistical analysis of data was done with ANAVA 2 Path. The results showed that: 1) There are differences in students' mathematical communication skills taught through a problem-based learning model with students taught through an expository learning model; 2) There are differences in students' motivation taught through a problem-based learning model with students taught through an expository learning model; 3) There is no interaction between learning model and mathematic early ability (KAM) of students to students' mathematical communication ability; and 4) There is no interaction between learning model and the students' early math ability (KAM) towards student learning motivation.

Keywords: Mathematical Communication Skills, Learning Motivation, Problem Based Learning.