

## ABSTRAK

**Ade Evi Fatimah.** Peningkatan Kemampuan Pemecahan Masalah Matematis dan Kemandirian Belajar Siswa SMK Negeri 1 Percut Sei Tuan Melalui Pendekatan *Differentiated Instruction*. Program Pascasarjana Universitas Negeri Medan 2012.

Tujuan penelitian ini adalah untuk mengetahui (1) peningkatan kemampuan pemecahan masalah dan kemandirian belajar siswa yang memperoleh pembelajaran matematika melalui pendekatan *Differentiated Instruction* (DI) lebih baik dari pada siswa yang memperoleh pembelajaran konvensional, (2) terdapat interaksi antara pendekatan pembelajaran dengan kemampuan awal siswa terhadap peningkatan kemampuan pemecahan masalah dan kemandirian belajar siswa. Jenis penelitian ini adalah eksperimen semu. Populasi dalam penelitian ini adalah seluruh siswa kelas X SMK Negeri 1 Percut Sei Tuan dan sampelnya dipilih secara acak yaitu kelas X TKJ1 (eksperimen) dan kelas X TITL1 (kelas Kontrol) yang masing-masing berjumlah 24 siswa. Instrumen yang digunakan terdiri dari: (1) tes KAM, (2) tes kemampuan pemecahan masalah pada materi trigonometri, dan (3) skala kemandirian belajar. Instrumen tersebut telah memenuhi syarat validasi serta memiliki koefisien reliabilitas sebesar 0,809 dan 0,737 berturut-turut untuk tes kemampuan pemecahan masalah matematis dan kemandirian belajar siswa. Analisis data dilakukan dengan menggunakan uji ANAVA dua jalur. Hasil penelitian ini menunjukkan bahwa (1) peningkatan kemampuan pemecahan masalah dan kemandirian belajar siswa yang memperoleh pembelajaran pembelajaran melalui pendekatan *Differentiated Instruction* (DI) lebih baik dibandingkan siswa yang memperoleh pembelajaran konvensional (2) tidak terdapat interaksi antara pendekatan pembelajaran dan kemampuan awal matematika siswa terhadap peningkatan kemampuan pemecahan masalah dan kemandirian belajar siswa. Peneliti menyarankan agar pendekatan *Differentiated Instruction* menjadi alternatif bagi guru dalam meningkatkan kemampuan pemecahan masalah matematis dan kemandirian belajar siswa.

**Kata Kunci:** Pendekatan *Differentiated Instruction* (DI), Kemampuan Pemecahan Masalah dan Kemandirian Belajar Siswa.

## ABSTRACT

**Ade Evi Fatimah.** Increasing the Ability of Mathematical Problem Solving and Tehnical High School Student's Percut Sei Tuan Self Regulated Learning by Using Differentiated Instruction. Post Graduate Program of Medan University 2012.

The research aimed study to determine: 1) the increasing ability of mathematics problem solving and student's self regulated learning by using Differentiated Instruction is better than students comprehension konvensional approach. 2) there was the interaction between learning by students first mathematic ability toward the increasing ability of mathematics problem solving and student's self regulated learning. This kind of research is the quasi experiment. The populations of this research are all of the students in X grade of Tehnical High School 1 Percut Sei Tuan and the sample chosen is randomly sample which are Tehnical High School 1 Percut Sei Tuan contain with X TKJ1 as experiment class and X TITL1 as control class each consist of 24 students. Instrument used consisted of: (1) test studens first mathematic, (2) test problem solving and (3) self regulated learning scale. The instrument has been declared eligible content validity and reliability coeffesient of 0,809 dan 0,737 respectively for test mathematics problem solving and self regulated learning. Data analysis is done by using ANAVA two ways. The result of this research shown that (1) there increasing ability in mathematics problem solving and student's self regulated learning by using Differentiated Instruction is better than using students comprehension konvensional approach, (2) there were no interaction between learning and student's ability level to the increasing ability of mathematics problem solving and student's self regulated learning. The researcher suggests to use the Differentiated Instruction approach as the alternative way for teachers to increase the ability in mathematics problem solving and student's self regulated learning.

**Key word:** Differentiated Instruction approach, the Ability of mathematics Problem Solving and Student's self regulated learning.