

ABSTRAK

M. Faisal Akbar, NIM: 5113311014. *Hubungan Antara Kemampuan Matematika Dan Disiplin Belajar Dengan Hasil Belajar Mekanika Teknik Siswa Kelas X Program Keahlian Teknik Konstruksi Batu Dan Beton SMK Negeri 1 Percut Sei Tuan. Skripsi. Fakultas Teknik Universitas Negeri Medan 2016.*

Penelitian ini bertujuan untuk mengetahui: 1) Adanya hubungan yang positif dan berarti antara Kemampuan Matematika terhadap Hasil Belajar Mekanika Teknik, 2) Adanya hubungan yang positif dan berarti antara Disiplin Belajar terhadap Hasil Belajar Mekanika Teknik, 3) Adanya hubungan yang positif dan berarti antara Kemampuan Matematika dan Disiplin Belajar terhadap Hasil Belajar Mekanika Teknik

Sebelum penelitian ini dilakukan instrumen penelitian terlebih dahulu diujicobakan, dilanjutkan dengan uji validitas, reliabilitas, indeks kesukaran, daya pembeda soal. 1) Hasil uji coba tes Kemampuan Matematika diperoleh 26 butir tes valid dengan koefisien reliabilitas = 0,821 termasuk kategori sangat tinggi. 2) Hasil uji coba soal angket Disiplin Belajar diperoleh 28 butir angket valid, koefisien reliabilitas = 0,915 termasuk kategori sangat tinggi. 3) Hasil uji coba soal tes Hasil Belajar Mekanika Teknik diperoleh 29 butir tes valid dari 35 butir total tes yang diujicobakan, koefisien reliabilitas = 0,832.

Berdasarkan pengujian hipotesis dapat disimpulkan: 1) Terdapat hubungan yang positif dan berarti antara Kemampuan Matematika terhadap Hasil Belajar Mekanika Teknik dengan besar korelasi $r_{x_1y} = 0,747$ dan $t_{hitung} = 6,509$ dan dari korelasi parsial diperoleh $r_{x_1y.x_2} = 0,739$ dan $t_{hitung} = 6,240$. 2) Terdapat hubungan yang positif dan berarti antara Disiplin Belajar terhadap Hasil Belajar Mekanika Teknik dengan besar korelasi $r_{x_2y} = 0,677$ dan $t_{hitung} = 4,950$ dan dari korelasi parsial diperoleh $r_{x_2y.x_1} = 0,666$ dan $t_{hitung} = 4,709$. 3) Terdapat hubungan yang positif dan berarti antara Kemampuan Matematika dan Disiplin Belajar terhadap Hasil Belajar Mekanika Teknik dengan besar korelasi ganda diperoleh $R_{xy(1,2)} = 0,868$ dan uji keberartian korelasi dengan menggunakan Uji-F diperoleh $F_{hitung} = 44,382$. Dengan demikian Kemampuan Matematika dan Disiplin Belajar mempunyai hubungan yang positif dan berarti terhadap Hasil Belajar Mekanika Teknik.

Besar sumbangan efektif dari Kemampuan Matematika terhadap Hasil Belajar Mekanika Teknik adalah sebesar 43,391% dan sumbangan efektif dari Disiplin Belajar terhadap Mekanika Teknik adalah sebesar 31,983%, dengan berarti sumbangan Kemampuan Matematika dan Disiplin Belajar terhadap Hasil Belajar Mekanika Teknik adalah sebesar 75,375%.

Kata Kunci : *Kemampuan Matematika, Disiplin Belajar, Hasil Belajar Mekanika Teknik*

ABSTRACT

M. Faisal Akbar, NIM: 5113311014. *The relationship between Mathematical Ability and discipline to study the results of the Study of Engineering Mechanics Grade X Rock Construction Engineering Program and concrete SMK Negeri 1 Percut Sei Tuan. Thesis. Engineering Faculty of the State University of Medan 2016.*

This research aims to find out: 1) The existence of a positive relationship between Mathematical Ability and means against the results of the Study of Engineering Mechanics, 2) The existence of a positive relationship between mean and Learn Discipline against the results of the Study of Engineering Mechanics, 3) The existence of a positive relationship between Mathematical Ability and means and Learn Discipline against the results of the Study of Engineering Mechanics

Before this research conducted prior research instruments are tested, followed by the test of validity, reliability, power, difficulty distinguishing index reserved. 1) trial results of mathematical ability test retrieved 26 grains of valid tests with the reliability coefficient = 0,821 categories include very high. 2) trial results matter now Disciplined Study retrieved 28 grain question form is valid, the coefficient of reliability = 0,915 categories include very high. 3) trial results Learning Outcomes tests are a matter of Engineering Mechanics retrieved 29 valid tests of 35 grain grains total test that tested reliability coefficients = 0,832.

Based on hypothesis testing can be summed up: 1) there is a positive relationship between Mathematical Ability and means toward Engineering Mechanics Learning Results with massive correlation of $r_{x1y} = 0,747$ and t hitung = 6,509 and partial correlation of obtained $r_{x1y. x 2} = 0,739$ and t hitung = 6,240. 2) there is a positive relationship between the means of discipline and Learning towards a Learning Outcomes with the huge Engineering Mechanics correlation of $r_{x2y} = 0,677$ and t hitung = 4,950 and partial correlation of obtained $r_{x2y. x 1} = 0,666$ and t hitung = 4,709. 3) there is a positive relationship between Mathematical Ability and means and Learn Discipline against the results of the Study of mechanics engineering with large double correlation obtained $R_{xy (1.2)} = 0,868$ and test meaning correlation by using Test-F retrieved F hitung = 44,382. Thus math skills and the discipline of Learning has a positive and meaningful relationship against the results of the Study of Engineering Mechanics.

Great math skills of effective contributions towards the results of the Study are Engineering Mechanics of 43,391% and effective contributions from the disciplines of Study towards Mechanics Technique is 31,983%, by means of donations math skills and Learning Discipline against the results of the Study are Engineering Mechanics of 75,375%.

Key Word : *Mathematical Ability, discipline to study, the results of the Study of Engineering Mechanics*