

ABSTRAK

Nudya, Fariz Ridho (NIM.081255310003). Hubungan Antara Kemampuan Berpikir Logis Matematika Dan Aktivitas Belajar Dengan Hasil Belajar Rencana Anggaran Biaya Pada Siswa Kelas XI Program Keahlian Teknik Konstruksi Batu Dan Beton SMK Negeri 2 Binjai Tahun Ajaran 2012/2013. Skripsi, Fakultas Teknik UNIMED, Medan 2013.

Penelitian ini bertujuan untuk mengetahui hubungan kemampuan berpikir logis matematika dan aktivitas belajar siswa dengan hasil belajar rencana anggaran biaya pada siswa kelas XI program keahlian konstruksi batu dan beton SMK Negeri 2 Binjai Tahun Ajaran 2012/2013 dengan jumlah responden 30 orang.

Data penelitian variabel kemampuan berpikir logis matematika (X_1) dan Hasil Belajar Rencana Anggaran Biaya (Y) dijarung dengan tes. Sedangkan Aktivitas Belajar Siswa (X_2) dijarung dengan angket.

Berdasarkan uji coba instrumen didapat hasil : (1) Variabel Kemampuan berpikir logis matematika (X_1) 22 Soal valid, Reliabilitas cukup sebesar 0.470 pada taraf signifikansi 5%. (2) variabel Aktivitas Belajar Siswa (X_2) 29 soal yang valid, reliabilitas yang sangat tinggi sebesar 0.87 pada taraf signifikansi 5%. (3) variabel Hasil Belajar Rencana Anggaran Biaya (Y) 28 soal yang valid, Reliabilitas yang tinggi sebesar 0.752 pada taraf signifikansi 5%.

Uji Normalitas dengan Chi-kuadrat masing-masing variabel penelitian didapat hasil sebagai berikut: (1) variabel Kemampuan berpikir logis Matematika (X_1) yaitu $\chi^2_{\text{hit}} (8.964) < \chi^2_{\text{tabel}} (11.1)$ berdistribusi normal signifikansi 5%. (2) variabel Aktivitas Belajar Siswa (X_2) yaitu $\chi^2_{\text{hit}} (10.756) < \chi^2_{\text{tabel}} (11.1)$ berdistribusi normal pada taraf signifikansi 5%. (3) variabel Hasil Belajar Rencana Anggaran Biaya (Y) $\chi^2_{\text{hit}} (3.417) < \chi^2_{\text{tabel}} (11.1)$ berdistribusi normal pada taraf signifikansi 5%.

Hasil uji masing-masing variabel penelitian didapat hasil: (1) persamaan regresi sederhana Y atas X_1 yaitu $\hat{Y} = 2.955 + 0.831 X_1$, uji kelinieran persamaan regresi Y atas X_1 yaitu $F_{\text{hitung}} < F_{\text{tabel}} (2,01 < 2,45)$ mempunyai hubungan yang linier dan berarti pada taraf signifikansi 5%. (2) persamaan regresi sederhana Y atas X_2 yaitu: $\hat{Y} = - 17,337 + 0.358 X_2$, uji kelinieran persamaan regresi Y atas X_2 yaitu $F_{\text{hitung}} < F_{\text{tabel}} (2,27 < 2,42)$ mempunyai hubungan yang linier dan berarti pada taraf signifikansi 5%.

Hasil analisis korelasi antara variabel didapat hasil: (1) variabel Kemampuan Berpikir Logis Matematika (X_1) dengan Hasil Belajar Rencana Anggaran Biaya (Y) yaitu : $t_{\text{hitung}} > t_{\text{tabel}} (16,284 > 1,70)$ menunjukkan korelasi positif dan berarti. (2) Aktivitas Belajar (X_2) dengan Hasil Belajar Rencana Anggaran Biaya (Y) yaitu $t_{\text{hitung}} > t_{\text{tabel}} (16,695 > 1,70)$ menunjukkan korelasi positif dan berarti pada taraf signifikansi 5%.

Berdasarkan hasil penelitian ini diperoleh terdapat hubungan yang positif dan berarti antara kemampuan berpikir logis matematika (X_1) dengan hasil belajar Rencana Anggaran Biaya (Y). Terdapat hubungan yang positif dan berarti antara aktivitas belajar siswa (X_2) dengan hasil belajar Rencana Anggaran biaya (Y) terdapat hubungan yang positif dan berarti secara bersama-sama antara kemampuan berpikir logis matematika (X_1) dan Aktvitas belajar siswa (X_2) dengan hasil belajar Rencana Anggaran Biaya (Y).

ABSTRACT

Nudya, Fariz Ridho (NIM.081255310003). Correlation Between Ability Logis Mathematical Thinking and Learning With The Learning Activity Plan Cost Estimates In Class XI Student Membership Program Stone And Concrete Construction Technique State SMK 2 Binjai school year 2012/2013. Thesis, Faculty of Engineering UNIMED, Field 2013.

This study aims to determine the relationship between the ability to think logically and activity learning mathematics learning outcomes of students with a budget plan in class XI student membership programs stone and concrete construction SMK Negeri 2 Binjai school year 2012/2013 with a total of 30 respondents.

Research data, the ability to think logically mathematical variables (X_1) and Revenue Study Plan Estimated Cost (Y) scored by the test. Student Learning activities are right (X_2) scored with A survey.

Based on the trial results obtained instruments: (1) The ability to think logically mathematical variable (X_1) 22 valid questionnaires, very high reliability of 0,470 at 5% significance level. (2) Student Learning activities variables (X_2) 29 valid questionnaires, the very high reliability of 0.87 at the 5% significance level. (3) The variable cost estimates Learning Plan (Y) 28 valid questionnaires, the very high reliability of 0,752 at 5% significance level.

Normality test with Chi-squared variables each study obtained the following results: (1) The ability to think logically Mathematical variables (X_1), namely χ^2 hit (8.964) $< \chi^2$ table (11.1) normal berdistribusi significance of 5%. (2) Student Learning activities variables (X_2) that hit χ^2 (10,756) $< \chi^2$ table (11.1) berdistribusi normal at 5% significance level. (3) The variable cost estimates Learning Plan (Y) χ^2 hit (3.417) $< \chi^2$ table (11.1) berdistribusi normal at 5% significance level.

Their test results obtained yield research variables: (1) simple regression equation Y on X_1 that is $y = 2,955 + 0,831 X_1$, test kelinieran regression equation Y on X_1 that is $F_{hitung} < F_{tabel}$ (2,01 $<$ 2.45) has a linear relationship and means at 5% significance level. (2) simple regression equation of Y on X_2 that is: $y = - 17,337 + 0,358 X_2$, test kelinieran regression equation Y on X_2 ie $F_{hitung} < F_{tabel}$ (2,27 $<$ 2.42) has a linear relationship and significant at 5% significance level.

Results of the analysis of correlation between the results obtained variables: (1) variables Logis Mathematical Thinking Ability (X_1) the Revenue Study Plan Cost Estimate (Y), namely: $r_{hitung} > r_{tabel}$ (16,284 $>$ 1,70) show positive and significant correlation. (2) Learning activities (X_2) by The Learning Plan Estimated Cost (Y) that $r_{hitung} > r_{tabel}$ (16,695 $>$ 1,70) show positive and significant correlation at 5% significance level.

Based on these research results obtained are positive and significant relationship between the ability to think logically mathematics (X_1) with the results of studying articles Estimated Cost (Y). There is a positive and significant relationship between students' learning activities (X_2) with the results of studying plan cost estimate (Y) there is a positive and meaningful relationship together between logical mathematical thinking ability (X_1) and Aktvitas learn students (X_2) with the results of studying plan cost estimate (Y).