

ABSTRACT

Muhammad Husni Thamrin Nasution. **The Relationship Among Logical Thinking Ability, Learning Habit and Perception of Mathematics With The Students Achievement in Mathematics of SMP Negeri in Binjai City.** Thesis. Education Technology Department, The State University of Medan School of Postgraduate Studies, January 2010.

This research was aimed at finding out the specific and significant relationship among logical thinking, learning habit and perception of mathematics with the students' achievement in mathematics of SMP Negeri in Binjai City. This is a descriptive correlation study to get the information about the symptom while the research done.

The population of the research were 240 persons of the second level of SMP Negeri in Binjai City, 80 persons were chosen as the sample using proportional random sampling. The objective test was used for learning achievement data; while the questionnaires were used for logical thinking, learning habit and perception of mathematics. Validity and reliability test were done before using the instruments. Product moment correlation formula is used for questionnaires and test validity $r_{ratio} > r_{table}$ of $\alpha = 0,05$. Point Biserial formula is used for questionnaires reliability $r_{ratio} > r_{table}$, and KR-20 is used for learning result reliability.

The finding indicated that : (first) There was a specific and significant relationship between logical thinking with learning mathematics achievement of $\hat{Y} = 0,938 + 0,259 X1$ by 0,813 correlation coefficient and 0,661 determination coefficient meant the contribution of logical thinking to learning mathematics achievement was 66,1%; (second) There was a specific and significant relationship between learning habit with learning mathematics achievement of $\hat{Y} = 4,804 + 0,207 X2$ by 0,798 correlation coefficient and 0,638 determination coefficient meant the contribution of learning interest to learning mathematics achievement was 63,8%; (third) There was a specific and significant relationship between perception with learning mathematics achievement of $\hat{Y} = 1,324 + 0,231 X3$ by 0,828 correlation coefficient and 0,685 determination coefficient meant the contribution of learning interest to learning mathematics achievement was 68,5%; and (fourth) There was a specific and significant relationship among logical thinking , learning habit and perception of mathemtics with learning mathematics achievement of $\hat{Y} = 20,414 + 0,160 X1 + 0,105 X2 + 0,077 X3$ by 0,977 double correlation and 0,954 determination coefficient meant the contribution of logical thinking, learning habit and perception to learning mathematics achievement was 95,40%.

Based on the result of the research could be concluded that logical thinking, habitual learning and perception are significant enough to explain (influence) the Students' Achievement in Mathematics of SMP Negeri in Binjai City.

ABSTRAK

Muhammad Husni Thamrin Nasution. **Hubungan Antara Kemampuan Berfikir Logis, Kebiasaan Belajar dan Persepsi Dengan Hasil Belajar Matematika Siswa SMP Negeri di Kota Binjai.** Tesis. Program Studi Teknologi Pendidikan, Universitas Negeri Medan (UNIMED) Program Pascasarjana, Januari 2010.

Populasi penelitian adalah siswa kelas 8 SMP Negeri 6, 9 dan 11 di Kota Binjai sebanyak 692 orang, sebanyak 80 orang dipilih sebagai sampel dengan menggunakan teknik sampel acak proporsional (*proportional random sampling*). Data hasil belajar diperoleh melalui tes objektif, sedangkan untuk kemampuan berfikir logis, kebiasaan belajar dan persepsi terhadap matematika diperoleh dengan menggunakan angket. Sebelum alat pengumpulan data digunakan, terlebih dahulu dilakukan uji validitas dan reliabilitas. Untuk mengetahui validitas angket dan tes hasil belajar digunakan rumus Korelasi Product Moment dengan kriteria valid jika $r_{hitung} > r_{tabel}$ pada taraf signifikansi 0,05. Untuk mengetahui reliabilitas angket digunakan rumus Point Biserial dengan kriteria $r_{hitung} > r_{tabel}$, sedangkan untuk mengetahui reliabilitas tes hasil belajar digunakan rumus KR-20.

Hasil penelitian menunjukkan bahwa : (pertama) terdapat hubungan positif yang signifikan antara kemampuan berfikir logis dengan hasil belajar Matematika dengan persamaan regresi $\hat{Y} = -0,938 + 0,259 X_1$. Koefisien korelasi 0,813 dan koefisien determinasi 0,661 yang berarti bahwa kontribusi kemampuan berfikir logis terhadap hasil belajar Matematika sebesar 66,1%; (kedua) terdapat hubungan positif yang signifikan antara kebiasaan belajar dengan hasil belajar Matematika dengan persamaan regresi $\hat{Y} = 4,804 + 0,207 X_2$. Koefisien korelasi 0,798 dan koefisien determinasi 0,638 yang berarti bahwa kontribusi kebiasaan belajar terhadap hasil belajar Matematika sebesar 63,8%; (ketiga) terdapat hubungan positif yang signifikan antara persepsi terhadap matematika dengan hasil belajar Matematika dengan persamaan regresi $\hat{Y} = -1,324 + 0,239 X_3$. Koefisien korelasi 0,828 dan koefisien determinasi 0,685 yang berarti bahwa kontribusi persepsi terhadap matematika terhadap hasil belajar Matematika sebesar 68,5%; dan (keempat) terdapat hubungan positif yang signifikan antara kemampuan berfikir logis, kebiasaan belajar, persepsi terhadap matematika dan hasil belajar Matematika dengan persamaan regresi ganda $\hat{Y} = 20,414 + 0,160 X_1 + 0,105 X_2 + 0,077 X_3$. Koefisien korelasi ganda 0,977 dan koefisien determinasi 0,954 yang berarti bahwa kontribusi kemampuan berfikir logis, kebiasaan belajar dan persepsi terhadap matematika secara bersama-sama terhadap hasil belajar Matematika sebesar 95,4%.

Berdasarkan hasil penelitian ini dapat disimpulkan bahwa kemampuan berfikir logis, kebiasaan belajar dan persepsi cukup signifikan dalam mempengaruhi hasil belajar Matematika siswa SMP Negeri 6, 9 dan 11 di Kota Binjai.