ABSTRACT

Syurya Darma, The effect of Discovery Strategy and Thinking Ability on the Student's Achievement In Mathematics. Thesis. Post graduate Program, State University of Medan 2007.

This research purpose : (1) To know the difference between learning student's achievement that is taught by with discovery strategy and student's is taught by conventional strategy. (2) To know the different between learning mathematics achievement with abstract sequential thinking Ability and student's with concrete sequential thinking Ability. (3) To know is there any interaction between the learning strategy and student's thinking Ability to the mathematics achievement. That research was held in SMPN. I Binjai North Sumatera, where class VIIIA as experimental class I and class VIIIB as experimental class II. This research uses quasy experiment Ability with factorial design 2 x 2 and 40 students as sample.

The instrument of this research was multiple choice test with four option. In order to get student's thinking Ability data, standard test; developed by teller, was used. Meanwhile student's achievement data uses mathematics test with 40 questions at reliability $r = 0{,}298$ The data analysis technique uses Varians analysis. For the different cell continued by using Scheffe test at significant level $\alpha = 0{,}05$

The hypothesis test using analysis of variance 2 x 2 shows that : (1) Student's achievement in learning mathematics that is thought by using discovery strategy is better than conventional strategy ($F_c = 5{,}90 > F_{(0{,}94)\ (1{,}36)} = 2{,}758$). (2) The mathematics achievement of student that has abstract sequential thinking Ability is better that concrete sequential thinking Ability. ($F_c = 24{,}16 > F_{(0{,}94)\ (1{,}36)} = 2{,}758$) (3) There is interaction between learning strategy and student's Ability to the mathematics achievement in junior high school. ($F_c = 19{,}25 > F_{(0{,}94)\ (1{,}36)} = 5{,}90$). By scheffe formula can be know : (a) student who has concrete sequential thinking Ability is better taught by using discovery strategy than conventional strategy. (b) Student who has sequential abstract thinking. Ability better thought by using conventional strategy than discovery strategy.

By the discoveries in this research, the searcher hope to all the education performer especially the mathematics teacher in teaching learning process use these discoveries as an indicator that should be attended to increase the student achievement.

ABSTRAK

Syurya Darma, Pengaruh Strategi Pembelajaran dan Kemampuan berpikir terhadap Hasil Belajar Matematika Siswa SMP Negeri 1 Binjai, Tesis Medan; Program Pasca Sarjana Unimed 2007.

Penelitian ini bertujuan untuk mengetahui : (1) Perbedaan Hasil Belajar Matematika antara siswa yang diajar dengan strategi discovery dan siswa yang diajar dengan strategi discovery dan siswa yang diajar dengan konvensional (2) Perbedaan Hasil Belajar Matematika antara siswa dengan kemampuan berpikir sekuensial abstrak dan siswa dengan kemampuan berpikir sekuensial konkrit. (3) Terdapat interaksi strategi pembelajaran dengan kemampuan berpikir dalam mempengaruhi hasil belajar matematika. Penelitian ini dilaksanakan di SMP Negeri 1 Binjai, desain faktorial 2 x 2 dengan kelas VIII/A sebagai sample kelas quasy eksperimen dan VIII/B sebagai kelas kontrol dengan jumlah siswa 40 orang.

Instrumen penelitian menggunakan tes berbentuk pilihan ganda dengan 4 pilihan jawaban, untuk menjaring data tentang kemampuan berpikir siswa yang berjumlah 15 pertanyaan dan untuk menjaring data mathematika sebanyak 40 pertanyaan dengan $r = 0,298$. Tehnik analisa data menggunakan varian analisys pada taraf signifikan $\alpha = 0,05$.

Temuan penelitian menunjukkan bahwa (1) Terdapat perbedaan hasil belajar dengan menggunakan methode discovery dengan konvensional ($F_h = 5,90 > F_{tabel\ (0,94)\ (1,36)} = 2,758$) (2) Terdapat perbedaan kemampuan berpikir sekuensial abstrak lebih baik dari sekuensial konkrit ($F_h = 24,16) > F_{(0,94)\ (1,36)} = 2,758$ (3) ada interaksi antara strategi pembelajaran dan kemampuan berpikir dalam mempengaruhi hasil belajar matematika siswa ($F_h = 19,25) > F_{(0,94)\ (1,36)} = 5,90$.

Hasil penelitian ini diharapkan dapat memberikan manfaat kepada guru dalam mengajarkan mata pelajaran matematika kepada siswa dengan menggunakan strategi discovery sebagai indikator menumbuhkan minat siswa untuk belajar.