ABSTRACT

AMINURIAH. The Influence of Creative and Learning Strategy on Students' Achievement on Mathematics at Junior High School (SMP Negeri 1) Stabat. Thesis. Educational Technology, Magister Program State University of Medan (UNIMED) 2007.

This study is aimed at finding out: (1) the difference between the students' achievement on mathematics taught by algorithmic and conventional learning strategy, (2) the difference of the mathematics learning result of students having high creativity and the students who having low creativity, (3) The interaction between learning strategy and creativity toward learning mathematics result. The hypotheses are (1) The students' achievement on mathematics taught by algorithmic and conventional learning strategy is different, (2) The students' achievement on mathematics having high and low creativity is different, (3) The interaction between the learning strategy and creativity influence the students' achievement on mathematics. In this case, the achievement of students having high creativity on mathematics is better if they are taught by algorithmic strategy compared to conventional one. While the students having low creativity on mathematics get better result if they are taught by conventional than that of algorithmic one. This research was conducted in SMP Negeri 1 Stabat, using experiment method with 2 x 2 factorial design and 80 sample students' that were taken by cluster random sampling.

The instrument used to measure the students achievement was a multiple test consisting 30 questions each with four options (a, b, c and d). The test reliability was 0.816 using KR-20. Figural and verbal creativity test was used to collect the data, and the test of reliability for students creativity was 0.688 using Alpha test.

The data analysis strategy uses two-way anava factorial 2 x 2 at the level of significance $\alpha = 0.05$. The 2 x 2 anava hypothesis testing shows that: (1) in general, there is difference of students achievement on mathematics between those who are taught by using algorithmic learning strategy and those who are taught by using conventional learning strategy ($F_c = 137,69 > F_{(0.95; 1.59)} = 4.003$), (2) in general, there is difference of students achievement on mathematics between those having high creativity and those having low creativity ($F_r = 22,27 > F_{(0.95; 1.59)} = 4.003$), (3) there is interaction between learning strategy and creativity on influencing the students achievement on mathematics ($F_{rc} = 15,26 > F_{(0.95; 1.59)} = 4.003$). Using the Scheffe' follow up test, it was proved that students having high creativity get better result if they are taught by algorithmic learning strategy than those by using conventional learning strategy. However, the students having low creativity will get better result if they are taught by conventional learning strategy than those by using conventional algorithmic strategy

ABSTRAK

AMINURIAH. Pengaruh Strategi Pembelajaran Dan Kreativitas Terhadap Hasil Belajar Matematika Siswa Sekolah SMP Pertama (SMP) Negeri 1 Kecamatan Stabat. Tesis. Medan : Program Pascasarjana UNIMED, 2007.

Penelitian ini bertujuan untuk mengetahui : (1) perbedaan hasil belajar matematika siswa yang diajarkan dengan strategi pembelajaran algoritmik dan konvensional. (2) perbedaan hasil belajar matematika antara siswa yang memiliki daya kreativitas tinggi dan siswa yang memiliki daya kreativitas rendah, serta (3) interaksi antara strategi pembelajaran dan kreativitas dalam mempengaruhi hasil belajar matematika siswa. Penelitian ini dilakukan di SMP Negeri 1 Kecamatan Stabat, menggunakan metode kuasi eksperimen dengan desain faktorial 2x2, di mana populasi penelitian ini berjumlah 280 siswa. Sampel penelitian ini berjumlah 80 orang siswa yang diperoleh dengan menggunakan teknik *cluster random sampling*.

Instrumen penelitian hasil belajar matematika menggunakan tes berbentuk pilihan ganda dengan 4 pilihan jawaban berjumlah 30 butir dan memiliki reliabilitas 0,816 menggunakan uji *KR-20*. Untuk menjaring data kreativitas siswa digunakan tes kreativitas figural dan verbal, dan memiliki nilai reliabilitas sebesar 0,688 menggunakan rumus *Alpha*.

Teknik analisis data menggunakan anava dua jalur pada taraf signifikansi $\alpha = 5\%$. Pengujian hipotesis anava 2 x 2 menunjukkan bahwa : (1) secara keseluruhan terdapat perbedaan hasil belajar matematika antara siswa yang diajar menggunakan strategi pembelajaran algoritmik dengan siswa yang diajar menggunakan strategi pembelajaran konvensional ($F_c = 137,69 > F_{(0.95;\ 1,59)} = 4.003$); (2) secara keseluruhan terdapat perbedaan hasil belajar antara siswa yang memiliki kreativitas tinggi dan siswa yang memiliki kreativitas rendah ($F_r = 22,27 > F_{(0.95;\ 1,59)} = 4.003$); (3) terdapat interaksi antara strategi pembelajaran dan kreativitas dalam mempengaruhi hasil belajar matematika ($F_{rc} = 15,26 > F_{(0.95;\ 1,59)} = 4.02$). Dengan uji lanjut menggunakan uji Scheffe'dibuktikan bahwa siswa yang memiliki kreativitas tinggi jika diajar menggunakan strategi pembelajaran Algoritmik akan memperoleh hasil belajar matematika yang lebih baik dari pada menggunakan strategi pembelajaran Kovensional. Sedangkan untuk siswa yang memiliki kreativitas rendah memperoleh hasil belajar matematika yang lebih baik jika diajar menggunakan strategi pembelajaran Konvensional dari pada menggunakan strategi pembelajaran Algoritmik.