

**PERBEDAAN KEMAMPUAN PEMECAHAN MASALAH DAN AKTIVITAS  
BELAJAR MATEMATIKA SISWA YANG DIAJAR DENGAN MODEL  
PEMBELAJARAN KOOPERATIF TIPE *NUMBERED HEADS  
TOGETHER* DAN *MAKE A MATCH* DI SMP SWASTA  
KRAKATAU MEDAN**

**Dian Rahmad Fadly Dalimunthe (NIM. 409311010)**

**ABSTRAK**

Penelitian ini merupakan penelitian eksperimen. Penelitian ini bertujuan untuk mengetahui apakah terdapat perbedaan kemampuan pemecahan masalah matematika siswa yang diajar menggunakan model kooperatif tipe NHT dan *Make A Match* di kelas VIII SMP Swasta Krakatau Medan, untuk mengetahui apakah terdapat perbedaan aktivitas belajar matematika siswa yang menggunakan model kooperatif tipe NHT dan *Make A Match* di kelas VII SMP Swasta Krakatau Medan, dan untuk mengetahui proses penyelesaian jawaban siswa dalam menyelesaikan soal matematika yang diajar menggunakan model kooperatif tipe NHT dan *Make A Match* di kelas VIII SMP Swasta Krakatau Medan. Sampel dalam penelitian ini ada dua kelas di kelas VIII yang dipilih secara random. Kelas eksperimen I yang diajar menggunakan model kooperatif tipe NHT dan kelas eksperimen II yang diajar menggunakan model kooperatif tipe *Make A Match*. Untuk memperoleh data yang diperlukan dalam penelitian ini digunakan tes essay untuk melihat kemampuan pemecahan masalah, lembar observasi aktivitas siswa untuk melihat aktivitas belajar siswa, dan menganalisis isi lembar jawaban siswa untuk mengetahui proses penyelesaian jawaban siswa. Sebelum digunakan, tes dan lembar observasi telah diujicobakan kepada siswa dan guru SMP Swasta Krakatau Medan dan Dosen Jurusan Matematika UNIMED.

Dari analisa data posttest dengan menggunakan uji-t pada taraf  $\alpha = 0,05$  diperoleh nilai  $t_{hitung} = 2,233$  dan  $t_{tabel} = 2,0021$ . Nilai  $t_{hitung} > t_{tabel}$  maka  $H_0$  ditolak dan  $H_a$  diterima. Sehingga dapat disimpulkan bahwa terdapat perbedaan kemampuan pemecahan masalah matematika siswa yang diajar menggunakan model kooperatif tipe NHT dan *Make A Match* di kelas VIII SMP Swasta Krakatau Medan, analisa data aktivitas siswa diperoleh nilai  $t_{hitung} = 4,623$  dan  $t_{tabel} = 2,0021$ . Nilai  $t_{hitung} > t_{tabel}$  maka  $H_0$  ditolak dan  $H_a$  diterima, sehingga disimpulkan bahwa terdapat perbedaan aktivitas belajar matematika siswa yang menggunakan model kooperatif tipe NHT dan *Make A Match* di kelas VII SMP Swasta Krakatau Medan, dan analisa lembar jawaban siswa dapat disimpulkan bahwa pada kelas eksperimen I dan eksperimen II sama-sama memiliki kelebihan dan kekurangan di setiap aspek pemecahan masalah pada setiap butir soal.

Kepada guru matematika dapat menjadikan model kooperatif tipe NHT sebagai alternative yang baik dalam mengasah kemampuan pemecahan masalah dan aktivitas belajar siswa. Kepada peneliti berikutnya agar melakukan penelitian yang serupa pada materi dan kelas berbeda untuk kemajuan pendidikan.

**THE DIFFERENCES OF PROBLEM SOLVING COMPETENCY AND STUDENT'S  
ACTIVITY IN LEARNING MATHEMATIC TAUGHT BY COOPERATIVE  
LEARNING MODEL NUMBERED HEADS TOGETHER AND MAKE  
A MATCH TYPE IN SMP SWASTA KRAKATAU MEDAN**

**Dian Rahmad Fadly Dalimunthe (Reg. Number : 409311010)**

**ABSTRACT**

The study was an experimental research. the objective of the study was to know whether there was a difference of students' problem solving competency in math taught by using cooperative model NHT type and Make A Match in grade VIII SMP Swasta Krakatau Medan, to know whether there was a difference of students' learning activity which used cooperative model NHT type and Make A Match in grade VIII SMP Swasta Krakatau Medan, and to know the process of students' answers in solving mathematic problem which taught by using cooperative model NHT type and Make A Match in grade VIII SMP Swasta Krakatau Medan.

The samples of this study were two classes of grade VIII which were chosen randomly. The experimental group I taught by using cooperative model NHT type and the experimental group II taught by using cooperative model Make A Match type. In order to obtain the data in this research, essay test was used to see the students' competencies in solving the problem, observation sheet of students' activities to see their learning activities, and the students' answer sheets were analyzed in order to know the students' answering process. Previously, the observation sheet and the test were tested to the students and teachers of SMP Swasta Krakatau Medan and the lecturers of Mathematic Department, State University of Medan.

Based on the post-test data analysis which used T-test as  $\alpha = 0,05$ , it was obtained the score of  $T_{\text{count}} = 2,233$  and  $T_{\text{table}} = 2,0021$ . Score of  $T_{\text{count}} > T_{\text{table}}$ , then  $H_0$  was rejected and  $H_a$  was accepted. It can be concluded that the difference of problem solving competency in mathematic taught by using cooperative model NHT type and Make A Match in grade VIII SMP Swasta Krakatau Medan, based on the data analysis of students' activity, it was obtained score of  $T_{\text{count}} = 4,623$  and  $T_{\text{table}} = 2,0021$ . Score of  $T_{\text{count}} > T_{\text{table}}$ , therefore  $H_0$  was rejected and  $H_a$  was accepted, and it can be concluded that there was a difference of students' learning activity in math which used cooperative model NHT type and Make A Match in grade VIII SMP Swasta Krakatau Medan, and based on the analysis of the students' answer sheet, it can be concluded that both the experimental group I and the experimental group II had advantages and disadvantages in each aspect of problem solving on every count of the questions.

To the mathematics teacher can use cooperative learning model NHT as a good alternative to learn problem solving competency and students' activity. To the next researcher in order to do the similar experimental on the different materials and class for the advancement of education.