

ABSTRAK

Pembelajaran kooperatif tipe *Numbered Heads Together* merupakan pembelajaran yang memiliki empat langkah kegiatan utama yaitu penomoran, pengajuan pertanyaan, berfikir bersama, dan pemberian jawaban. Pada proses pembelajaran setiap siswa dalam kelompok memiliki nomor yang berbeda dan kemampuan akademik yang heterogen. Kemudian setiap anggota kelompok diberikan tanggung jawab untuk memecahkan masalah atau soal dalam kelompoknya dan diberikan kebebasan mengeluarkan pendapat tanpa merasa takut salah. Tujuan penelitian ini adalah untuk mengetahui kemampuan siswa menentukan turunan fungsi aljabar dengan model pembelajaran kooperatif tipe tipe *Numbered Heads Together*, pembelajaran konvensional serta mengetahui mana lebih baik kemampuan siswa setelah dilaksanakannya perbaikan pembelajaran dalam turunan fungsi aljabar.

Lokasi penelitian di MAN Kabanjahe. Populasi penelitian siswa kelas XI MIA yang terdiri dari dua kelas dengan jumlah siswa 69 orang. Sampel populasi penelitian ditentukan dengan cara *cluster random sampling* sehingga diperoleh sampel di kelas XI MIA-1 dan XI MIA-2 dengan masing-masing kelas berjumlah 32 orang dan 37 orang. Jenis penelitian ini *quasi eksperimen* dan instrumen penelitian adalah tes berbentuk uraian sebanyak tiga soal yang telah divalidasi oleh validator.

Berdasarkan hasil analisis data dapat disimpulkan kemampuan siswa menentukan turunan fungsi aljabar dengan model pembelajaran kooperatif tipe *Numbered Heads Together* diperoleh nilai rata-rata 70,36, kemampuan siswa dengan pembelajaran konvensional diperoleh nilai rata-rata 60,93 dan kemampuan siswa menentukan turunan fungsi aljabar dengan menggunakan model pembelajaran tipe *Numbered Heads Together* lebih baik daripada kemampuan siswa dengan pembelajaran konvensional di kelas XI MIA Madrasah Aliyah Negeri Kabanjahe Tahun Pelajaran 2018/2019.

Kata Kunci : Kemampuan, Model Pembelajaran *Numbered Heads Together*, Turunan fungsi aljabar.

ABSTRACT

Numbered Heads Together type cooperative learning is learning that has four steps main activities namely numbering, asking questions, thinking together, and giving answers. In the learning process each student in the group has a different number and heterogeneous academic abilities. Then each group member is given responsibility for solving problems or problems in his group and is given the freedom to issue opinions without feeling afraid of being wrong. The purpose of this study was to determine the ability of students to determine the derivative of algebraic functions with the Cooperative type Numbered Heads Together type of learning model, conventional learning and to know which students' abilities were better after learning improvements were carried out in the derivative of algebraic functions.

Location of research in Kabanjahe MAN. The research population of XI MIA students consisted of two classes with 69 students. The study population sample was determined by cluster random sampling so that samples were obtained in class XI MIA-1 and XI MIA-2 with each class totaling 32 people and 37 people. This type of research is quasi-experimental and the research instrument is a descriptive test of three questions that have been validated by the validator.

Based on the results of data analysis it can be concluded that the ability of students to determine the derivative of algebraic functions by using the Numbered Heads Together cooperative learning model obtained an average value of 70.36, the ability of students with conventional learning obtained an average value of 60.93 and the ability of students to determine the derivative of algebraic functions using the Numbered Heads Together type learning model better than the ability of students with conventional learning in class XI MIA Kabanjahe State Aliyah Madrasah 2018/2019 Academic Year.

Keywords: Ability, *Numbered Heads Together* Learning Model, Derivation of algebraic functions.