

ABSTRAK

SUWANTI RAHAYU. Peningkatan Kemampuan Penalaran dan Disposisi Matematis Siswa SMP Kelas VII Melalui Model Pembelajaran Kooperatif TPS Berbantuan Software Autograph. Tesis. Medan. Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan. 2016.

Penelitian ini bertujuan untuk mengetahui: 1) Apakah kemampuan penalaran dan disposisi matematika siswa yang memperoleh pembelajaran matematika dengan model pembelajaran kooperatif *Think Pair Share* berbantuan *software autograph* lebih tinggi dari siswa yang memperoleh model pembelajaran ekspositori berbantuan Autograph; 2) Menunjukkan ada atau tidaknya interaksi antara kemampuan awal siswa dengan model pembelajaran kooperatif *think pair share* (TPS) berbantuan Software Autograph terhadap kemampuan penalaran dan disposisi matematika siswa; dan 3) Mendeskripsikan ragam penyelesaian masalah siswa yang diajarkan melalui model pembelajaran kooperatif *think pair share* (TPS) berbantuan autograph dan siswa yang diajarkan dengan pembelajaran ekspositori berbantuan Autograph. Penelitian ini merupakan penelitian kuasi eksperimen. Populasi penelitian ini adalah siswa SMP Muhammadiyah 22 Kiaran dan sampel dalam penelitian adalah siswa kelas VII-1 dan VII-3 SMP Muhammadiyah 22 Kisaran. Analisis statistik data dilakukan dengan analisis varians 2 jalur (ANAVA 2 Jalur). Hasil penelitian menunjukkan bahwa: 1) Peningkatan kemampuan penalaran matematis siswa yang diajar dengan model pembelajaran kooperatif tipe *think pair share* berbantuan autograf lebih tinggi dari siswa yang diajar dengan pembelajaran ekspositori berbantuan autograph, dimana perolehan F hitung sebesar 119,653 dengan nilai sig = 0,000 < 0,05 demikian juga disposisi matematis siswa yang diajar dengan model pembelajaran kooperatif tipe *think pair share* berbantuan autograf lebih tinggi dari siswa yang diajar dengan pembelajaran ekspositori berbantuan autograf, dimana perolehan F hitung sebesar 11,392 dengan nilai sig = 0,001 < 0,05; 2) Ada interaksi yang signifikan antara model pembelajaran dengan tingkat kemampuan awal matematika siswa terhadap peningkatan kemampuan penalaran dan disposisi matematis siswa; 3) Pola jawaban siswa pada tes kemampuan penalaran matematis siswa untuk kelas eksperimen lebih baik daripada siswa kelas kontrol. Berdasarkan hasil penelitian ini maka para guru matematika disarankan untuk menggunakan model pembelajaran kooperatif tipe *think pair share* sebagai model pembelajaran alternative dalam pembelajaran matematika serta memanfaatkan teknologi seperti software autograph untuk menumbuhkan antusias siswa dalam pembelajaran.

Kata Kunci: Pembelajaran Kooperatif TPS, Penalaran Matematika, Disposisi Matematika.

ABSTRACT

SUWANTI RAHAYU. Improvement of Ability Reasoning Mathematical And Disposition Junior High School Students of Class VII Through Cooperative Learning Model TPS Assisted Software Autograph. Thesis. Medan: Department of Educational Mathematics Post-Graduate State University of Medan. 2016.

This study aimed to know the: 1) Does of mathematics reasoning ability and dispositions of students who obtain mathematical learning with cooperative learning model Think Pair Share aided by software autograph higher than students who received model of expository aided by Autograph; 2) Indicates whether or not the interaction between prior knowledge of students with cooperative learning model Think Pair Share (TPS) Software aided by Autograph against math reasoning skills and dispositions of students; and 3) to describe the variety of students taught problem solving through cooperative learning model Think Pair Share (TPS) aided autograph and students taught by expository assisted Autograph. This study is a quasi-experimental research. This study population is students of SMP Muhammadiyah 22 Kisaran and the sample were students of class VII-1 and VII-3 SMP Muhammadiyah 22 Kisaran. Statistical analysis of data is done with 2-way analysis of variance (ANOVA 2 Way). The results showed that: 1) Improving the ability of mathematical reasoning students taught by cooperative learning model Think Pair Share aided by autograph higher than students taught by expository assisted autographs, where the acquisition of F count equal to 119.653 with sig = $0,000 < 0,05$ as well as the disposition of mathematical students taught by cooperative learning model think pair share aided by autograph higher than students taught by expository assisted autograph, where the acquisition of F count equal to 11.392 with sig = $0.001 < 0.05$; 2) There was a significant interaction between the learning model with the level of prior knowledge of mathematics students to the improvement of reasoning ability and disposition mathematical students; 3) The pattern of responses of students on tests of mathematical reasoning skills students for experimental class is better than the control class. Based on these results, then the math teachers are advised to use cooperative learning model type Think Pair share as an alternative model of learning in mathematics as well as the use of technology such as software autograph to grow a enthusiastic students in learning.

Keywords: Cooperative Learning TPS, Mathematical Reasoning, Mathematical Dispositions.