ABSTRAK

Georgina Maria Tinungki (2016). Peningkatan Kemampuan Pemecahan Masalah dan Komunikasi Matematis serta *Self Proficiency* Mahasiswa melalui Model Kooperatif tipe *Team Assisted Individualization.*

Penelitian ini bertujuan menganalisis pencapaian dan peningkatan kemampuan pemecahan masalah matematis (KPMM) dan kemampuan komunikasi matematis (KKM) serta *self proficiency* (SPr) mahasiswa dengan model kooperatif tipe *Team Assisted Individualization* (PKT) dibandingkan dengan pembelajaran biasa (PB). Sampel penelitian 50 mahasiswa kelas ekperimen dengan model PKT dan 42 mahasiswa kelas kontrol dengan model PB pada Program Studi Statistika di salah satu Perguruan Tinggi Negeri di Kota Makassar. Kemampuan awal matematis (KAM) mahasiswa dikelompokkan dalam tiga level, yaitu tinggi, sedang dan rendah. Instrumen yang digunakan dalam penelitian ini adalah tes KAM, tes KPMM, tes KKM, skala SPr dan lembar observasi. Analisis data menggunakan uji Kolmogorov-Smirnov (uji Z), uji Levene (uji F),   Anava satu dan dua arah, uji Post Hoc (Scheffe dan Tamhane), uji Kruskal-Walls, serta uji Chi-Square. Berdasarkan hasil penelitian di peroleh kesimpulan (1) Pencapaian dan Peningkatan KPMM, KKM dan SPr mahasiswa pada perkuliahan Teori Peluang dengan menggunakan model PKT lebih baik daripada mahasiswa dengan model PB. (2) Tidak terdapat interaksi antara pembelajaran matematika dengan menggunakan model PKT dan model PB dan KAM terhadap KPMM   (pencapaian dan peningkatan) mahasiswa pada perkuliahan Teori Peluang. (3) Tidak terdapat interaksi antara pembelajaran matematika dengan menggunakan model PKT dan model PB dan KAM terhadap KKM (pencapaian dan peningkatan) mahasiswa pada perkuliahan Teori Peluang. (4) Terdapat korelasi yang signifikan antara KPMM, KKM dan SPr   mahasiswa pada perkuliahan Teori Peluang.

Kata kunci : Model kooperatif tipe *Team Assisted Individualization,* Pemecahan Masalah Matematis, Komunikasi Matematis dan *Self Proficiency*

ABSTRACT

Georgina Maria Tinungki (2016). Improvement of the Students' Problem Solving and Mathematical Communication Abilities and Self Proficiency by Using Cooperative Learning Model with Team Assisted Individualization.

This research aims to analyze achievement and improvement of the students' problem solving and mathematical communication abilities and their self proficiency by cooperative learning model with Team Assisted Individualization compared to the using of conventional learning. The subject of the research was 50 students of experiment class taught by using cooperative learning model with Team Assisted Individualization and 42 students of control class taught by using conventional learning. This research was conducted in Statistics study program at one of public universities in Makassar, at the second semester of 2013/2014 academic year. The students' mathematical ability was categorized into three levels, based on the test result of mathematical prior ability, namely: high, intermediate, and low. The instruments used were test of mathematical prior ability, test of mathematical problem solving ability, test of mathematical communication, self proficiency scale, and observation sheet. The data was analyzed by using Kolmogorov-Smirnov test (Z-test), Lavene test (F-test), One way ANOVA and Two ways ANOVA, Post Hoc test (Scheffe and Tamhane), Kruskal-Walls test, and Chi-Square test. Based on the analysis, we can draw conclusions that: (1) the achievement and the improvement of the students' mathematics problem solving and mathematical communication abilities and self proficiency in Probability Theory subject by using PKT are better than the ones taught by conventional learning; (2) there is no interaction between the mathematics learning by using cooperative learning model with Team Assisted Individualization compared to the using of conventional learning, and the mathematical prior ability towards the students' mathematical problem solving and mathematical communication abilities (achievement and improvement) in Probability Theory subject; (3) there is no interaction between the mathematics learning by using model cooperative learning model with Team Assisted Individualization compared to the using of conventional learning, and the mathematical prior ability towards the students' mathematical communication ability (achievement and improvement) in Probability Theory subject; (4) there is significant correlation between the students' mathematical problem solving ability, mathematical communication ability, and self proficiency in Probability Theory subject.

Keywords: Cooperative learning model type Team Assisted Individualization, Mathematical problem solving, Mathematical communication, Self proficiency