

ABSTRACT

ADY PUTRA. Perbedaan Peningkatan Kemampuan Penalaran Matematis dan *Self Confidence* Siswa Antara Pendekatan Metakognitif Dan Pendekatan Matematika Realistik di MTS Negeri Balige. Tesis. Pascasarjana Pendidikan Matematika Universitas Negeri Medan, 2020.

Penelitian ini bertujuan untuk mengetahui perbedaan peningkatan kemampuan penalaran matematis siswa dan *self confidence* yang diajarkan dengan pendekatan metakognitif dan pendekatan PMR, serta untuk menganalisis perbedaan peningkatan penalaran matematis siswa dan *self confidence* ditinjau dari indikatornya. Data diperoleh melalui tes kemampuan penalaran matematis terdiri atas Pre-test dan Post-test siswa serta angket untuk melihat *self-confidence* siswa. Data dianalisis dengan uji independen T-Test N-Gain Skor. Berdasarkan hasil uji independen T-Test N-Gain Skor kemampuan penalaran matematis siswa diperoleh nilai signifikansi = 0,008 karena taraf sig. lebih kecil dari 0.05, sehingga disimpulkan terdapat perbedaan peningkatan kemampuan penalaran matematis siswa dengan pendekatan metakognitif dan pendekatan PMR. Selanjutnya untuk *self confidence* nilai signifikansi = 0,000 karena taraf sig. lebih kecil dari 0.05, maka disimpulkan terdapat perbedaan peningkatan *self confidence* siswa dengan pendekatan metakognitif dan pendekatan PMR. Selanjutnya untuk hasil penelitian perbedaan peningkatan penalaran matematis siswa dan *self confidence* ditinjau dari indikatornya yaitu terdapat perbedaan signifikan peningkatan kemampuan penalaran matematis pada indikator 1 dan indikator 2 yang diajar dengan pendekatan metakognitif lebih tinggi daripada siswa yang diajar dengan pendekatan PMR dan untuk indikator 3 dan 4 tidak terdapat perbedaan signifikan peningkatan kemampuan penalaran matematis. Untuk *self confidence* tidak terdapat perbedaan signifikan peningkatan kemampuan penalaran matematis pada indikator 1 dan indikator 2 yang diajar dengan pendekatan metakognitif dan siswa yang diajar dengan pendekatan PMR dan terdapat perbedaan signifikan peningkatan *self confidence* pada indikator 3, indikator 4, dan indikator 5 yang diajar dengan pendekatan metakognitif lebih baik daripada siswa yang diajar dengan pendekatan PMR.

Keywords: : Pendekatan Metakognitif, Pendekatan PMR, Kemampuan Penalaran Matematis, *Self-Confidence*

ABSTRACT

ADY PUTRA. Differences in the Improvement of Students' Mathematical Reasoning Ability and Self-Confidence Between Metacognitive Approaches and Realistic Mathematical Approaches in MTS Negeri Balige. Thesis. Medan: Post Graduate Program of Mathematics for Education Department of State University of Medan 2020.

This study aims to determine the differences in the improvement of students' mathematical reasoning abilities and self-confidence taught by a metacognitive approach that is better than a realistic mathematics approach, as well as to analyze differences in the improvement of students' mathematical reasoning and self-confidence in terms of indicators. Data were obtained through tests of mathematical reasoning abilities consisting of students' pre-test and post-test as well as a questionnaire to see students' self-confidence. Data were analyzed by independent test T-Test N-Gain Score. Based on the results of the independent T-Test N-Gain test scores of students' mathematical reasoning abilities obtained a significance value = 0.008 because of the sig level. smaller than 0.05, so it is concluded that there is a difference in the increase in students' mathematical reasoning abilities with a metacognitive approach higher than the realistic mathematics approach. Furthermore, for self-confidence, the significance value = 0.000 because of the sig level. smaller than 0.05, it is concluded that there is a difference in the increase in students' self-confidence with a metacognitive approach higher than the realistic mathematics approach. Furthermore, for the research results, the difference in the increase in students' mathematical reasoning and self-confidence in terms of the indicators is that there is a significant difference in the increase in mathematical reasoning abilities in indicator 1 and indicator 2 which are taught with a metacognitive approach which is higher than students who are taught with a realistic mathematics approach and for indicators 3 and 4. there is no significant difference in the increase in mathematical reasoning abilities. For self-confidence, there is no significant difference in the increase in mathematical reasoning skills in indicator 1 and indicator 2 who are taught with a metacognitive approach and students who are taught with a realistic mathematics approach and there is a significant difference in the increase in self-confidence in indicator 3, indicator 4, and indicator 5 who are taught with the metacognitive approach is better than students who are taught with a realistic mathematics approach.

Keywords: Metacognitive Approach, Realistic Mathematical Education Approach, Mathematical Reasoning Ability, Self-Confidence