# ABSTRAK

**IRMAYANTI**. Peningkatan Kemampuan Pemecahan Masalah dan *Self Efficacy* Matematis Siswa SD Melalui Pendekatan Pembelajaran Matematika Realistik. Tesis Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan. 2013

Tujuan penelitian untuk mengetahui : (1) Peningkatan kemampuan pemecahan masalah dan *self-efficacy* matematis siswa yang memperoleh pendekatan pembelajaran matematika realistik lebih baik daripada kemampuan pemecahan masalah dan *self-efficacy* matematis siswa yang memperoleh pendekatan konvensional. (2) Interaksi antara pendekatan pembelajaran dengan kemampuan awal siswa terhadap peningkatan kemampuan pemecahan masalah dan *self-efficacy* matematis. (3) Proses penyelesaian pemecahan masalah matematis siswa yang menggunakan pendekatan pembelajaran matematika realistik dan pendekatan konvensional.

Instrumen yang digunakan adalah : (1) Tes kemampuan awal matematika, (2) Tes kemampuan pemecahan masalah matematis, (3) Angket *self efficacy* skala likert, (4) Lembar observasi. Instrumen tersebut telah memenuhi syarat validitas dan koefisien reliabilitas sebesar 0,87 dan 0,93 untuk kemampuan pemecahan masalah dan *self efficacy* matematis.

Jenis penelitian adalah kuasi-eksperimen. Subyek penelitian SD Negeri Pulo Jantan dan SD Negeri Impres Aek Kota Batu Kec: NA IX-X. Sampel eksperimen 66 siswa, sampel kontrol 63 siswa pengambilan sampel secara acak. Objek penelitian: kemampuan pemecahan masalah dan *self efficacy*. Data penelitian tes awal, tes akhir dan proses penyelesaian.

Dari penelitian pemecahan masalah diperoleh $F_{hitung}$ = 5,461 > $F_{tabel}$ = 3,07 terdapat perbedaan peningkatan kemampuan pemecahan masalah matematis siswa yang diberi PMR dibandingkan dengan siswa yang diberi PMK. Untuk *self efficacy* diperoleh $F_{hitung}$ = 110,835 > $F_{tabel}$ = 3,07 terdapat perbedaan peningkatan *self efficacy* matematis siswa yang diberi PMR dibandingkan dengan siswa yang diberi PMK.

Kesimpulan : Peningkatan kemampuan pemecahan masalah dan *self efficacy* matematis siswa yang menggunakan PMR lebih baik dibandingkan dengan siswa yang menggunakan PMK

Saran : PMR hendaknya menjadi alternatif pembelajaran bagi guru di SMP, terutama untuk meningkatkan kemampuan pemecahan masalah dan *self efficacy* matematis siswa.

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# ABSTRACT

**IRMAYANTI**. Increasing the problem solving ability and the students mathematics self efficacy through the Realistic Mathematics Approach. Thesis Study Program Graduate Education Mathematics, state University of Medan. 2013.

The problem in this research is the lowness of the problem solving ability and the students mathematics self efficacy. This matter is caused by the teacher is still in learning that uses the conventional approach. This study aimed to determine : (1) Is the increase in problem solving skills of students learning prosess using PMR better than mathematical problem solving skills of students who received conventional learning process, (2) Is there any interaction between teaching approaches and aerly math skills to increase mathematical problem solving ability, (3) Is the increase in mathematical *self efficacy* skills of students learning prosess using PMR better than mathematical *self efficacy* skills of students who received conventional learning process, (4) Is there any interaction between teaching approaches and aerly math skills to increase mathematical *self efficacy* ability. Therefore, we need the change in learning process, is using the realistic mathematics approach.
This research forms exprement wuation with non-equivalen control group design. Aim to know the problem solving ability and the student mathematics self efficacy, than the solving problem test in the mathematics problem solving ability. The population in this research is all the students in IV SD Kec: NA IX-X that have learning group more than 1. Randomly, it is chosen two school are SD Negeri Pulo Jantan and SD Negeri Impres Aek Kota Batu. Then, each school is chosen randomly two clases with the same ability to certain the experiment class and control class. The experiment class is given the realistic mathematics approach, in the other side, the control class is given the conventional approach. The instrument is used that consist of the beginning ability mathematics test, the problem solving ability mathematics test, the observation pieces. The instruments is stated that has fulfilled the validity requirements and the realibility. Coefficient 0,87 and 0,93 sistematically to the problem solving ability and the mathematics self efficacy. The analyse data is done with using the test t, ANOVA two ways. The research result show that the value of probability sig = 0,021 and 0,000 < 0.05 this the problem solving ability increasing and the student mathematics self efficacy are given the realistics mathematics approach significantly better than the student are given the conventional approach. No interaction between the learning approach and the students'mathematics ability. There are interaction between the learning approach and self efficacy mathematics ability.