ABSTRACT

Senovri Wandra . 2016. " The increase of the Ability to Reason Math and Students' Self Convidence about Addition and Subtraction of Fractions Through Problem Base Learning Strategy in Class IV SDN 04 Muaro Sei Lolo Pasaman district"." Thesis. Graduate Program S-2 Padang State University.

Mathematical reasoning ability and students' self convidence of fourth grade SDN 04 Muaro Sei Lolo Kab. Pasaman disrict still low. This can be seen from the observation and analysis of learning outcomes in the form of replay value. The problems were solved by the implementation of Problem Based Learning strategy (SPBM). The purpose of this study was to describe the increase in the ability to reason and students' self convidence by using SPBM mathematical strategy.

This type of research is a classroom action research that conducted in two cycles. Every cycle consists of four stages: planning, action, observation, and reflection. The subjects of the research is the fourth grade students by the number of 26 students. The data were obtained through observation sheets, notes field, and test. The data were analyzed qualitatively and quantitatively.

These research' results indicate the increase in mathematical reasoning ability and stydents' self convidence by using Problem Based Learning strategy (SPBM). The increase was seen with untrained students in the learning Problem Based Learning strategy process such as: students are accustomed faced with a problem, find their own patterns to make generalizations, in collaboration completing worksheets in the study group, briefed the friends in the group, the opinions of friends, reported the results of a discussion group next class, and the invisibility of changes in student' learning outcomes. In addition, students have been able to work with good, responsible, and respect the opinion of outhe classmates. The first cycle I, the average students' mathematical reasoning ability 66.46%; cycle II, 76.13%. The level of the first cycle students' self convidence, an average of 63.12%; cycle II, 73,65% in the second cycle. The success of reasoning ability and students' self convidence also led to increased cognitive learning outcomes of students. In the first cycle I the average learning outcomes students' cognitive 73.07%. Cycle II of 80.77%. With this, Problem Based Learning strategy (SPBM) can improve math reasoning abilities and students' self convidence .

ABSTRAK

Senovri Wandra. 2016. "Peningkatan Kemampuan Menalar Matematika dan *Self Convidence* Siswa Tentang Penjumlahan dan Pengurangan Pecahan Melalui Strategi Pembelajaran Berbasis Masalah di Kelas IV SDN 04 Muaro Sei Lolo Kabupaten Pasaman". Tesis. Program Studi S-2 Pendidikan Dasar Universitas Negeri Padang.

Kemampuan menalar matematika dan *self convidence* siswa kelas IV SD SDN 04 Muaro Sei Lolo Kab. Pasaman masih rendah. Hal ini terlihat dari hasil observasi dan analisis terhadap hasil pembelajaran berupa nilai ulangan. Permasalahan tersebut diatasi dengan penerapan Starategi Pembelajaran Berbasis Masalah (SPBM). Tujuan penelitian ini adalah untuk mendeskripsikan peningkatan kemampuan menalar matematika dan *self convidence* siswa dengan SPBM.

Jenis penelitian yang digunakan adalah penelitian tindakan kelas yang dilaksanakan dalam dua siklus. Setiap siklus terdiri dari empat tahap yaitu perencanaan, tindakan, pengamatan, dan refleksi. Subjek penelitian adalah siswa kelas IV dengan jumlah siswa 26 orang. Data penelitian diperoleh melalui lembar observasi, catatan lapangan, dan tes. Data yang terkumpul dianalisis secara kualitatif dan kuantitatif.

Hasil penelitian ini menunjukkan bahwa adanya peningkatan kemampuan menalar matematika dan *self convidence* siswa dengan menggunakan SPBM. Peningkatan tersebut terlihat dengan terlatihnya siswa dalam proses belajar SPBM seperti: siswa terbiasa dihadapkan suatu masalah, menemukan sendiri pola untuk membuat generalisasi, bekerjasama menyelesaikan LKS dalam kelompok belajar, memberi penjelasan kepada teman dalam kelompok, menghargai pendapat teman, melaporkan hasil diskusi kelompok ke depan kelas, dan terlihatnya perubahan pada hasil belajar siswa. Di samping itu, siswa telah mampu bekerjasama dengan baik, bertanggung jawab, dan menghargai pendapat temannya. Pada siklus I, rata-rata kemampuan menalar matematika siswa 66,46%; Siklus II, 76,13%. Tingkat *self convidence* siswa siklus I 63,12%. Pada siklus II 73,65%. Keberhasilan kemampuan penalaran dan *self convidence* siswa juga menyebabkan meningkatnya hasil belajar kognitif siswa. Pada siklus I rata-rata hasil belajar kognitif siswa 73,07%. Siklus II 80,77%. Dengan demikian, pembelajaran SPBM dapat meningkatkan kemampuan menalar matematika dan *self convidence* siswa.