

## ABSTRAK

### PENGARUH PENERAPAN MODEL PEMBELAJARAN *PROBLEM BASED LEARNING* (PBL) TERHADAP HASIL BELAJAR SISWA KELAS IV MUATAN MATEMATIKA MATERI PECAHAN DI SDN NOGOPURO

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2018

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh penerapan model pembelajaran Problem Based Learning (PBL) terhadap hasil belajar matematika materi pecahan (pecahan senilai, pengurangan pecahan, dan penjumlahan pecahan) siswa kelas IV SD Negeri Nogopuro tahun ajaran 2017/2018.

Penelitian ini menggunakan *quasi experimental* tipe *nonequivalent control group design*. Populasi penelitian ini adalah seluruh siswa SD Negeri Nogopuro yang berjumlah 341 siswa. Sampel penelitian ini terdiri dari 30 siswa kelas IV A sebagai kelompok eksperimen dan 28 siswa kelas IV B sebagai kelompok kontrol. *Treatment* yang diterapkan di kelompok eksperimen adalah model *Problem Based Learning*. Ada 7 langkah dalam model *Problem Based Learning* yaitu *Pertama* Mengklarifikasi istilah dan konsep yang belum jelas. *Kedua* Merumuskan masalah. *Ketiga* Menganalisis Masalah. *Keempat* Menata gagasan siswa dan secara sistematis menganalisisnya secara mendalam. *Kelima* Memformulasikan tujuan pembelajaran. *Keenam* Mencari Informasi tambahan dari sumber yang lain (di luar diskusi kelompok). *Ketujuh* Mensintesa (Menggabungkan) dan menguji informasi baru, dan membuat laporan untuk kelas.

Hasil analisis terhadap data penelitian menjawab hipotesis penelitian. Hasil uji signifikansi pengaruh perlakuan menggunakan statistik parameterik dengan Independent samples t-test menunjukkan Hasil skor rerata selisih kelompok eksperimen  $M = 0,43.0667$ ,  $N = 30$ ,  $SD = 0,22.03592$ , dan  $SE = 0,4.02319$ . Pada kelompok kontrol diperoleh  $M = 0,3.6786$ ,  $N = 28$ ,  $SD = 0,19.77663$ , dan  $SE = ,3.73743$ . Hasil uji selisih skor hasil belajar menunjukkan bahwa  $t = 7.146$ ,  $df = 56$ , harga *sig.(2-tailed)* kelompok eksperimen dan kelompok kontrol sebesar 0,000 (atau  $p < 0,05$ ) sehingga  $H_{null}$  ditolak dan  $H_i$  diterima. Artinya ada perbedaan yang signifikan antara selisih skor pretest-posttest pada kelompok eksperimen dan kelompok kontrol. Dengan kata lain model pembelajaran Problem Based Learning berpengaruh terhadap hasil belajar matematika dengan materi pecahan.

Kata kunci : Model Pembelajaran *Problem Based Learning*, hasil belajar, dan muatan matematika materi pecahan.

## ABSTRACT

### **EFFECT OF APPLICATION PROBLEM BASED LEARNING MODEL ON STUDY RESULT IN MATHEMATICS SUBJECT ABOUT MATERIAL OF FOURTH GRADE IN NOGOPURO ELEMENTARY SCHOOL**

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*The purpose of this study is to determine the effect of the application of Problem Based Learning (PBL) learning model to the mathematics learning outcomes of fractional materials (denominations, fraction deduction, and the sum of fractions) the fourth grade students of SD Negeri Nogopuro in the academic year 2017/2018.*

*This study uses quasi experimental type nonequivalent control group design. The population of this study were all students of SD Negeri Nogopuro which amounted to 341 students. The sample of this research consisted of 30 students of class IV A as experiment group and 28 students of class IV B as control group. Treatment applied in the experimental group is a Problem Based Learning model. There are 7 steps in the model of Problem Based Learning is First Clarify the terms and concepts that have not been clear. Second Formulate the problem. Third Analyzing Problems. Fourth Arrange student ideas and systematically analyze them in depth. Fifth Formulate learning objectives. Sixth Finding Additional Information from other sources (outside of group discussions). Seventh Synthesize (Combine) and test new information, and create a report for the class.*

*The results of the analysis of research data answered the research hypothesis. The result of significance test using parameter statistic with Independent samples t-test shows the result of mean score of experimental group difference  $M = 0,43,0667$ ,  $N = 30$ ,  $SD = 0,22,03592$ , and  $SE = 0,4,02319$ . In the control group obtained  $M = 0,3,6786$ ,  $N = 28$ ,  $SD = 0,19,77663$ , and  $SE = 3,73743$ . The result of the test result of the learning result score shows that  $t = 7,146$ ,  $df = 56$ , the sig. (2-tailed) experimental and control group is 0,000 (or  $p < 0,05$ ) so  $H_{null}$  is rejected and  $H_i$  is accepted. This means that there is a significant difference between the difference between pretest-posttest score in the experimental group and the control group. In other words, Learning Based Learning model has an effect on the result of learning mathematics with fractional material.*

**Keywords:** Problem Based Learning Model Learning, Learning Outcomes, and Mathematical Content of Fractional Material.