

ABSTRAK

**PENGARUH PENERAPAN MODEL *PROBLEM BASED LEARNING*
TERHADAP KEMAMPUAN *EKSPLANASI* DAN *REGULASI DIRI* PADA
MATA PELAJARAN IPA KELAS IV SD N PERUMNAS CONDONGCATUR
YOGYAKARTA**

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Kata kunci: Model *Problem Based Learning*, kemampuan *eksplanasi*, kemampuan *regulasi diri*, dan mata pelajaran IPA.

Latar belakang penelitian ini adalah keprihatinan terhadap rendahnya tingkat literasi IPA siswa Indonesia pada penelitian PISA tahun 2012 dan 2015. Tujuan penelitian ini adalah untuk mengetahui pengaruh penerapan model *Problem Based Learning* terhadap kemampuan *eksplanasi* dan *regulasi diri* pada mata pelajaran IPA kelas IV SD N Perumnas Condongcatur pada semester gasal tahun ajaran 2016/2017.

Penelitian ini menggunakan penelitian *quasi-experimental* tipe *non-equivalent control group design*. Populasi penelitian ini adalah seluruh siswa kelas IV SD N Perumnas Condongcatur Yogyakarta sebanyak 82 siswa. Sampel penelitian ini terdiri dari 26 siswa kelas IV B sebagai kelompok eksperimen dan 30 siswa kelas IV C sebagai kelompok kontrol. *Treatment* yang diterapkan di kelompok eksperimen adalah model *Problem Based Learning*. Ada 5 langkah dalam model *Problem Based Learning* yaitu mengorientasi peserta didik terhadap masalah, mengorganisasi peserta didik untuk belajar, membimbing penyelidikan individual maupun kelompok, mengembangkan dan menyajikan hasil karya, serta menganalisis dan mengevaluasi proses pemecahan masalah.

Hasil penelitian menunjukkan bahwa 1) Model *Problem Based Learning* berpengaruh terhadap kemampuan *eksplanasi*. Rerata selisih skor pada kelompok eksperimen ($M = 1,01$, $SE = 0,11$) lebih tinggi daripada rerata selisih skor pada kelompok kontrol ($M = 0,69$, $SE = 0,07$). Perbedaan tersebut signifikan dengan $t(54) = -2,53$ dan $p = 0,014$ ($p < 0,05$). Besarnya pengaruh sebesar $r = 0,33$ atau setara dengan 11%. 2) Model *Problem Based Learning* berpengaruh terhadap kemampuan *regulasi diri*. Rerata selisih skor pada kelompok eksperimen ($M = 1,09$, $SE = 0,07$) lebih tinggi daripada rerata selisih pada kelompok kontrol ($M = 0,72$, $SE = 0,09$). Perbedaan tersebut signifikan dengan $t(54) = -3,05$ dan $p = 0,004$ ($p < 0,05$). Besarnya pengaruh sebesar $r = 0,39$ atau setara dengan 15%.

ABSTRACT

**THE EFFECT OF THE IMPLEMENTATION OF PROBLEM BASED
LEARNING MODEL ON THE ABILITY OF EXPLAIN AND SELF REGULATE
IN SCIENCE SUBJECT FOR THE FOURTH GRADE IN PERUMNAS
CONDONGCATUR YOGYAKARTA ELEMENTARY SCHOOL**

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Keywords: *Problem Based Learning model, ability to explain, ability to self regulate, and natural science subject.*

The background of this study was directed to the concern about the low of science literacy level of Indonesian students that according to PISA 2012 and 2015. The aims of the study was to find out the effect of the implementation of Problem Based Learning Model on the ability to explain and self regulate in science subject for the fourth grade in Perumnas Condongcatur Elementary School in odd semester 2016/2017.

This study used quasi experimental research with nonequivalent control group design. The population of this study were 82 of the 4th grade students in Perumnas Condongcatur Elementary School. The samples were 26 students of class IV B as the experimental group and 30 students of class IV C as control group. The treatment for the experimental group was Problem Based Learning model. There are 5 steps in the Problem Based Learning model including orientate students toward the problem, organize students to study, lead the individual or group inquiry, develop and present the result, and analyze and evaluate problem solving process.

The result of this study showed that 1) Problem Based Learning model affects on the ability to explain. The average of difference score from experimental group ($M= 1,01$, $SE=0,11$) was higher than the the average of difference score from the control group ($M= 0,69$, $SE= 0,07$). The difference was significant with $t(54) = -2,53$ and $p = 0,014$ ($p < 0,05$). The effect size was 0,33 as same as 11%. 2) Problem Based Learning model affects on the ability to self regulate. The average of difference score from experimental group ($M= 1,09$, $SE=0,07$) was higher than the the average of difference score from the control group ($M= 0,72$, $SE= 0,09$). The difference was significant with $t(54)= -3,05$ and $p = 0,004$ ($p < 0,05$). The effect size was 0,39 as same as 15%.