

# EFEKTIVITAS PENDEKATAN SAINTIFIK DENGAN METODE PROBLEM BASED LEARNING (PBL) PADA PEMBELAJARAN MATEMATIKA DITINJAU DARI PRESTASI BELAJAR PESERTA DIDIK KELAS X DI SMA NEGERI 2 BANGUNTAPAN

Oleh:

Riska Dwitasari

NIM 11301241037

11301241037@student.uny.ac.id

Pendidikan Matematika

## ABSTRAK

Penelitian ini bertujuan untuk mengetahui efektivitas pendekatan saintifik dengan metode *Problem Based Learning* (PBL) dan pembelajaran ekspositori serta mengetahui pembelajaran mana yang lebih efektif antara pendekatan saintifik dengan metode *Problem Based Learning* (PBL) dan pembelajaran ekspositori pada pembelajaran matematika ditinjau dari prestasi belajar matematika peserta didik di SMA.

Penelitian ini merupakan kuasi eksperimen dengan desain *pretest-posttest control group*. Subjek penelitian ini adalah peserta didik kelas X SMA Negeri 2 Banguntapan, 30 siswa dalam kelas eksperimen dan 34 siswa dalam kelas kontrol. Instrumen dalam penelitian ini yaitu tes prestasi belajar. Hasil dari validasi dalam penelitian ini berupa instrumen dengan ketentuan layak digunakan dengan revisi. Hasil reliabilitas *pretest* dan *posttest* adalah 0,64 dan 0,61 dengan kategori tinggi. Analisis data menggunakan analisis deskriptif dan uji-*t* dengan menggunakan  $\alpha = 5\%$ .

Hasil penelitian menunjukkan rata-rata *pretest* dan *posttest* kelas eksperimen sebesar 41,50 dan 77,67 serta rata-rata *pretest* dan *posttest* kelas kontrol sebesar 41,62 dan 77,79. Selain itu, diperoleh variansi *pretest* dan *posttest* kelas eksperimen sebesar 62,33 dan 70,23 serta variansi *pretest* dan *posttest* kelas kontrol sebesar 122,30 dan 86,65. Hasil uji hipotesis menunjukkan bahwa: (1) pendekatan saintifik dengan metode *Problem Based Learning* (PBL) efektif ditinjau dari prestasi belajar matematika, (2) pembelajaran ekspositori efektif ditinjau dari prestasi belajar matematika, dan (3) pendekatan saintifik dengan metode *Problem Based Learning* (PBL) tidak lebih efektif daripada pembelajaran ekspositori pada pembelajaran matematika ditinjau dari prestasi belajar matematika peserta didik kelas X di SMA Negeri 2 Banguntapan.

**Kata Kunci:** *pendekatan saintifik, metode Problem Based Learning (PBL), pembelajaran ekspositori, prestasi belajar.*

**THE EFFECTIVENESS OF SCIENTIFIC APPROACH WITH PROBLEM BASED  
LEARNING METHOD IN MATHEMATICAL LEARNING IN TERMS OF  
ACHIEVEMENT FOR TENTH GRADE STUDENT OF STATE SENIOR HIGH  
SCHOOL 2 OF BANGUNTAPAN**

By:  
Riska Dwitasari  
NIM 11301241037  
11301241037@student.uny.ac.id  
Pendidikan Matematika

**ABSTRACT**

This research aimed to know the effectiveness of scientific approach with Problem Based Learning (PBL) method and expository learning, and to know the better effective learning between scientific approach with Problem Based Learning (PBL) method and expository learning on mathematics learning in terms of student's learning achievement mathematic in senior high school.

This research was a quasi experiment using pretest-posttest control group design. The research subject was the tenth grade students of State Senior High School 2 of Banguntapan, 30 students in the experiment class and 34 students in the control class. The instrument of this research was achievement test. The result of the validity of this research was the instrument with the provisions of decent used with revisions. The results of the reliability of pre-test and post-test were 0,64 and 0,61 with high category. The data were analysed using descriptive analysis and t-test using  $\alpha = 5\%$ .

The results of the research shown that the average pre-test and post-test of experiment class were 41,50 and 77,67, and the average *pre-test* and *post-test* control class were 41,62 and 77,79. Furthermore the variance of pre-test and post-test experiment class were 62,33 and 70,23 then the variance of *pre-test* and *post-test* control class were 122,30 and 86,65. The results of testing a hypothesis shown that: (1) the scientific approach with Problem Based Learning (PBL) method was effective in term of learning achievement, (2) the expository learning was effective in term of learning achievement, and (3) the scientific approach with Problem Based Learning (PBL) method was no more effective than expository learning in mathematics learning in term of learning achievement tenth grade student of State Senior High School 2 of Banguntapan.

**Keywords:** *scientific approach, Problem Based Learning (PBL) method, expository learning, achievement.*