

## ABSTRACT

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### **APPLICATION OF PROBLEM BASED LEARNING MODEL VISITORS IN INCREASING SCIENTIFIC ATTITUDE, CRITICAL THINKING SKILLS, AND SCIENCE PROCESS SKILLS ON PHYSICS SUBJECT HIGH SCHOOL FOR XI SCIENCE GRADE IN TANGERANG**

(xviii + 150 pages : 54 figures, 46 tables, 5 appendices )

This research is motivated by the low value of scientific attitude, critical thinking skills, and science process skills on physics subject high school for XI Science grade students. The purpose of this study was to analyze the application of problem based learning model in improving of scientific attitude, critical thinking skills, and science process skills on physics subject high school for XI grade students. This type of research is a classroom action, observation, and reflection. The subjects of this study were 15 students in one class. The instrument used was an assessment rubric to measure of scientific attitude, critical thinking skills, and science process skills. The results showed an increase in the average value of scientific attitude in cycle one is 55,42, in the second cycle is 69,17, and in the third cycle is 83,75. The increase in the average value of critical thinking skills in cycle one is 49,44, in the second cycle is 66,11, and in third cycle is 83,33. The increase in the average value of science process skills in cycle one is 51,25, in the second cycle is 63,75, in the third cycle is 80,83. It can be concluded that Problem Based Learning model can be improve of scientific attitude, critical thinking skills, and science process skills on physics subject high school for XI grade students in Tangerang.

**Keywords** : PBL Learning Model, scientific attitude, critical thinking skills, and science process skills.

**Reference** : 53 (1994-2020)

## ABSTRAK

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### **PENERAPAN MODEL *PROBLEM BASED LEARNING* DALAM MENINGKATKAN SIKAP ILMIAH, KETERAMPILAN BERPIKIR KRITIS, DAN KETERAMPILAN PROSES SAINS MATA PELAJARAN FISIKA KELAS XI IPA SMA DI TANGERANG**

(xviii + 150 halaman : 54 gambar, 46 tabel, 5 lampiran )

Penelitian ini dilatar belakangi oleh rendahnya sikap ilmiah, keterampilan berpikir kritis, dan keterampilan proses sains pada mata pelajaran fisika siswa SMA kelas XI IPA. Tujuan dari penelitian ini ialah untuk menganalisis penerapan model pembelajaran Problem Based Learning dalam meningkatkan sikap ilmiah, keterampilan berpikir kritis, dan keterampilan proses sains pada mata pelajaran fisika siswa SMA kelas XI IPA. Jenis penelitian yang digunakan ialah penelitian tindakan kelas yang terdiri dari tiga siklus pembelajaran dengan tahapan perencanaan, tindakan, observasi, dan refleksi. Subjek penelitian ini ialah 15 siswa dalam satu kelas. Instrumen yang digunakan ialah rubrik penelitian untuk mengukur sikap ilmiah, keterampilan berpikir kritis, dan keterampilan proses sains. Hasil penelitian menunjukkan peningkatan rata-rata sikap ilmiah pada siklus satu yaitu 55,42, pada siklus dua yaitu 69,17, dan pada siklus tiga yaitu 83,75. Peningkatan rata-rata nilai keterampilan berpikir kritis pada siklus satu yaitu 49,44, pada siklus dua yaitu 66,11, pada siklus tiga yaitu 83,33. Peningkatan rata-rata nilai keterampilan proses sains pada siklus satu yaitu 51,25, pada siklus dua yaitu 63,75, dan pada siklus tiga yaitu 80,83. Dapat di ambil kesimpulan bahwa model pembelajaran Problem Based Learning dapat meningkatkan sikap ilmiah, keterampilan berpikir kritis, dan keterampilan proses sains pada materi pelajaran fisika siswa SMA kelas XI IPA di Tangerang.

Kata Kunci : Model Pembelajaran PBL, sikap ilmiah, keterampilan berpikir kritis, keterampilan proses sains.

Referensi : 53 ( 1994-2020)