

**PENGEMBANGAN RENCANA PELAKSANAAN PEMBELAJARAN (RPP)
BERORIENTASI SCIENTIFIC APPROACH UNTUK MENINGKATKAN
SCIENCE PROCESS SKILLS DAN HASIL BELAJAR FISIKA PESERTA
DIDIK SMA NEGERI 1 PRAMBANAN PADA MATERI
BESARAN DAN SATUAN**

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ABSTRAK

Penelitian ini bertujuan untuk: 1) mengetahui kelayakan RPP yang mengacu pada *scientific approach* materi besaran dan satuan, 2) untuk mengetahui peningkatan *science process skills* peserta didik dengan menggunakan RPP yang dikembangkan dengan menggunakan *scientific approach*, dan 3) Mengetahui peningkatan hasil belajar peserta didik. Penelitian melibatkan kelas X MIA 1 SMA Negeri 1 Prambanan

Metode penelitian yang digunakan adalah metode penelitian dan pengembangan atau *Research and Development (R&D)*. Model penelitian yang digunakan pada metode R&D ini adalah *4-D Models*. Tahapan model 4-D terdiri dari 4 tahapan yaitu *Define, Design, Develop, dan Disseminate*. Instrumen dalam penelitian ini yaitu: lembar validasi RPP, lembar validasi LKPD, lembar evaluasi *pre-test* dan *post-test*, lembar observasi psikomotor, lembar observasi afektif, lembar keterlaksanaan RPP. Data diperoleh melalui observasi dan tes. Teknik analisis data untuk data kualitatif dianalisis secara deskriptif. Teknik analisis data validasi instrumen dianalisis menggunakan tabel konversi kuantitatif ke kualitatif dan *Percentage of Observer Agreement* ; data kemampuan psikomotor dan afektif menggunakan konversi kuantitatif ke kualitatif; data peningkatan keterampilan proses sains menggunakan gain ternormalisasi; data ketercapaian proses pembelajaran menggunakan persentase ketercapaian.

Hasil penelitian menunjukkan bahwa RPP yang dirancang layak digunakan untuk meningkatkan keterampilan proses sains berdasarkan kriteria kelayakan menurut penilaian validator. Hasil penggunaan perangkat RPP dengan pendekatan saintifik (*Scientific Approach*) telah berhasil meningkatkan keterampilan proses sains (*science process skills*) siswa dalam kategori sedang untuk ranah kognitif dan kategori tinggi untuk ranah psikomotor.

kata kunci: RPP, *Scientific Approach*, *Science Process Skills*, layak

***DEVELOPMENT OF LESSON PLAN WHICH ORIENTED TO SCIENTIFIC APPROACH
TO IMPROVING SCIENCE PROCESS SKILLS AND IMPROVING LEARNING
OUTCOMES FOR STUDENTS AT SENIOR HIGH SCHOOL ONE PRAMBANAN
IN SUBJECT MATTER QUANTITIES AND UNITS***

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ABSTRACT

The purposes of this research are: 1) To produce lesson plan which oriented to scientific approach for subject matter quantities and units, 2) To determine the improvement of science process skills of students by using lesson plan , and 3) To determine the enhancement of learning outcomes. The research involved a class X MIA 1 Senior High School 1 Prambanan

The method used is a method of research and development (R & D). The research model used in the method of R & D is a 4-D Models. Stages 4-D models consist of four stages, namely Define, Design, Develop and Disseminate. Instruments in this study are: Lesson plan validation sheet, sheet LKPD validation, evaluation sheets pre-test and post-test, the observation sheet psychomotor, affective observation sheets, sheet enforceability of lesson plan. Data obtained through observation and tests. Data analysis techniques for qualitative data were analyzed descriptively. Instrument validation data analysis techniques were analyzed using a conversion table quantitative to qualitative and Percentage of Observer Agreement; psychomotor and affective abilities using qualitative to quantitative conversion; data enhancement science process skills using normalized gain; data achievement of the learning process using the percentage of achievement.

The results showed that the lesson plan is designed appropriate to use to enhance the science process skills assessment based on the eligibility criteria according to the assessor. The results of the use of the lesson plan with a Scientific Approach has succeeded in improving students' science process skills in the medium category for cognitive and the high category for psychomotor. Learning outcomes of students in the cognitive, affective, and psychomotor after using the lesson plan increased.

Keywords: Lesson plan, Scientific approach, Science Process Skills, Valid