

## ABSTRAK

### PENGEMBANGAN BAHAN AJAR UNTUK IMPLEMENTASI PEMBELAJARAN IPA TERPADU TIPE THREADED MATERI CAHAYA DALAM MENINGKATKAN LITERASI SAINS DAN MINAT BELAJAR SISWA

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Penelitian ini bertujuan untuk mengetahui kelayakan bahan ajar dan efektifitas bahan ajar IPA terpadu tipe *threaded* dalam meningkatkan literasi sains dan minat belajar siswa. Penelitian ini dilakukan di SMPN 2 Kadudampit Kabupaten Sukabumi Tahun Ajaran 2016/2017. Metode yang digunakan adalah *mix methods embedded experimental design research* dengan menggabungkan data kualitatif dan data kuantitatif. Pengembangan bahan ajar dilakukan dengan teknik *four step teaching material development* (4S TMD) yang meliputi seleksi, strukturisasi, karakterisasi dan reduksi didaktik. Bahan ajar kemudian di uji kelayakan oleh lima validator dan uji keterbacaan pada siswa. Penelitian ini menggunakan dua kelas, siswa pada kelas eksperimen menggunakan bahan ajar IPA terpadu tipe *threaded*, sedangkan siswa kelas kontrol menggunakan bahan ajar BSE. Instrumen yang digunakan dalam penelitian berupa lembar validasi bahan ajar, lembar keterbacaan bahan ajar, tes literasi sains siswa berupa soal pilihan ganda dan lembar angket minat belajar siswa. Berdasarkan hasil analisis data diperoleh persentase rerata hasil uji kelayakan 78%. Uji keterbacaan diperoleh persentase keterbacaan sebesar 92% dengan kategori independen. Rerata *n-gain* kemampuan literasi sains sebesar 0,67 dan untuk minat belajar siswa diperoleh rata-rata sebesar 3,9 dari skala 5. Data yang diperoleh kemudian dianalisis dengan menggunakan analisis *independen sample t tes* pada SPSS 20.0 Diperoleh hasil bahwa terdapat perbedaan peningkatan literasi sains dengan *p-value* 0,013. Terdapat perbedaan minat belajar siswa secara signifikan kelas eksperimen yang menggunakan bahan ajar IPA terpadu tipe *threaded* dibandingkan dengan siswa kelas kontrol yang menggunakan bahan ajar BSE dengan nilai *p-value* sebesar 0,000.

Kata-kata kunci: bahan ajar, IPA terpadu tipe *threaded*, literasi sains, minat belajar siswa, cahaya dan pengelihan.

## ABSTRACT

### THE DEVELOPMENT OF TEACHING MATERIALS FOR IMPLEMENTATION OF INTEGRATED SCIENCE TYPE THREADED LIGHT TOPIC IN IMPROVING SCIENCE LITERACY AND STUDENTS'S LEARNING INTEREST

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This study was aimed to determine the appropriateness and the effectiveness of integrated science teaching materials threaded type in improving science literacy and students's learning interest. This study was conducted at SMPN 2 Kadudampit Sukabumi for the 2016/2017 academic year. The method used was mix-methods embedded experimental design which applied qualitative and quantitative data. The teaching material was developed by four step teaching material development (4S TMD) technique involve the selection, structure, characterization, and didactic reduction. Teaching materials are then tested diligence by five validator and readability by students. There were two classes involved, the experiment class where the students using the integrated science teaching materials threaded type, while the control class where its students using the BSE teaching materials. The Instruments used in the research were form teaching materials validation, form readability of teaching material, student science literacy test in the form of multiple choice questions and student's interest learning questionnaire. Based on the results of data analysis obtained the percentage of the average results of the feasibility test 78%. Test readability test obtained the percentage of readability by 92% with an independent category. The average of n-gain of science literacy equal to 0,67 and for student's learning interest got an average of 3,9 from scale 5. The data obtained then analyzed by using independent sample t test at SPSS 20.0 The result obtained that there is difference of increase of literasi Science with p-value 0.013. There was a significant difference in student learning interest in the experimental class using integrated threaded type IPA materials compared with control class students using BSE teaching materials with a p-value value of 0.000.

**Keywords:** Teaching materials, integrated science threaded type, science literacy, students's learning interest, light and vision