

**PENGEMBANGAN BAHAN AJAR KIMIA PADA MATERI
SISTEM KOLOID MENGGUNAKAN METODE 4S TMD
BERBASIS *KNOWLEDGE BUILDING ENVIRONMENT***

TESIS

**Diajukan untuk memenuhi sebagian dari syarat
untuk memperoleh gelar Magister Pendidikan
Program Studi Pendidikan Kimia**



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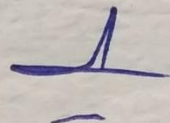
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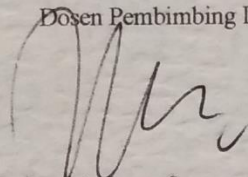
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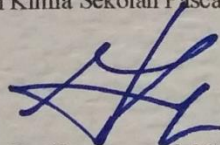


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ABSTRAK

Penelitian ini bertujuan untuk menghasilkan bahan ajar materi sistem koloid berbasis *knowledge building environment* (KBE) yang dikembangkan menggunakan metode *Four Steps Teaching Material Development* (4STMD) dan mengetahui keterpahaman serta kelayakannya. Metode penelitian yang digunakan adalah *Development Research* (DR) yang terdiri dari tahap *Design*, *Develop*, dan *Evaluation* dengan model pengembangan bahan ajarnya menggunakan 4STMD yang terdiri dari tahap seleksi, strukturisasi, karakterisasi, dan reduksi didaktik. Nilai-nilai dari KBE yang dikembangkan yaitu: perhatian (*attentiveness*), kepedulian (*careness*), keingintahuan (*curiosity*), kritis (*critical*), menghormati/menghargai lingkungan (*refect for environmrnt*), menghargai keehatan (*respect for health*), dan kearifan atau kebijaksanaan (*wisdom*). Instrumen yang digunakan dalam penelitian ini yaitu rubrik validasi tahap seleksi, rubrik validasi tahap strukturisasi, rubrik validasi tahap karakterisasi, rubrik validasi reduksi didaktik, rubrik keterpahaman, dan angket kelayakan bahan ajar. Uji karakterisasi bahan ajar dilakukan pada 23 orang siswa kelas XI di salah satu SMA Negeri di Kabupaten Garut dan uji kelayakan bahan ajar dilakukan oleh 2 orang dosen ahli bahan ajar di lingkungan Prodi Pendidikan Kimia, Sekolah Pascasarjana, Universitas Pendidikan Indonesia dan 9 orang guru kimia SMA Negeri di Kabupaten Garut. Hasil penelitian menunjukkan: 1) Proses dan hasil bahan ajar yang dikembangkan sangat sesuai dengan kriteria: kurikulum, kebenaran ilmu, dan mengandung nilai KBE, dilengkapi peta konsep, terstruktur dan sistematis; 2) Keterpahaman bahan ajar oleh siswa sebesar 88,24% (tinggi); dan 3) Kelayakan bahan ajar sebesar 95,06% (sangat layak) memenuhi kriteria penilaian buku teks pelajaran berdasarkan standar BSNP artinya bahan ajar ini sangat layak digunakan.

Kata Kunci: Bahan Ajar, Sistem Koloid, 4STMD, *Knowledge Building Environment*

DEVELOPMENT OF CHEMICAL TEACHING MATERIALS IN COLLOIDAL SYSTEM USING 4STMD METHOD BASED ON KNOWLEDGE BUILDING ENVIRONMENT

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ABSTRACT

This study aims to result a teaching material of colloidal system based on knowledge building environment (KBE) which is developed using the Four Steps Teaching Material Development (4STMD) method and find out the familiarity and feasibility of the teaching materials produced. The development method used is 4STMD which consists of selection, structuring, characterization, and didactic reduction. The values of KBE developed are: attentiveness, careness, curiosity, critical (critical), respect for the environment, respect for health, and wisdom or wisdom. The instruments used in this study are the validation rubric of the selection stage, the validation rubric of the structuring stage, the validation rubric of the characterization stage, the didactic reduction validation rubric, the comprehension rubric, and the feasibility of teaching material. The characterization test of teaching materials was carried out on 23 students of class XI at one of SMA Negeri in Garut Regency and the feasibility test of teaching materials was carried out by 2 teaching material expert lecturers in the Chemistry Education Study Program, Postgraduate Indonesian Education University and 9 state high school chemistry teachers in Garut. The results of the study show: 1) Process and results of the teaching materials developed are very in accordance with the following criteria: curriculum, scientific truth, and contain KBE values, equipped with concept maps, structured and systematic; 2) Understanding of teaching materials by students is 88.24% (high); and 3) The feasibility of teaching materials is 95.06% (very feasible) fulfilling the criteria for the assessment of lesson text books based on BSNP standards, meaning that the teaching materials are very suitable to use.

Keywords: Teaching Materials, Colloidal Systems, 4STMD, Knowledge Building Environment

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