

ABSTRAK

Ayu Dini Farhana. Pengembangan Buku Ajar Matematika Materi Barisan dan Deret dengan Pendekatan *Contextual Teaching and Learning* (CTL) untuk Siswa Kelas X SMK Bisnis dan Manajemen. Skripsi. Jakarta: Program Studi Pendidikan Matematika, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas negeri Jakarta, Februari, 2019.

Penelitian ini bertujuan untuk menghasilkan sumber belajar berupa buku ajar matematika untuk siswa SMK bidang keahlian bisnis dan manajemen. Buku ajar ini dibuat karena buku ajar yang digunakan oleh SMK kebanyakan tidak sesuai dengan kurikulum SMK yang berdasarkan dengan bidang keahlian, sehingga siswa dapat termotivasi belajar matematika sesuai dengan bidang keahlian bisnis dan manajemen pada materi barisan dan deret. Berdasarkan analisis kebutuhan, materi yang dikembangkan adalah materi barisan dan deret dengan pendekatan *Contextual Teaching and Learning* (CTL). Pendekatan CTL memiliki tujuh komponen utama dalam proses pembelajaran, yakni konstruktivisme (*constructivism*), menemukan (*inquiry*), bertanya (*questioning*), masyarakat belajar (*learning community*), pemodelan (*modelling*), refleksi (*reflection*), dan penilaian autentik (*authentic assesment*).

Penelitian ini menggunakan metode penelitian dan pengembangan (*research and development*). Penelitian ini melalui lima tahapan. Tahapan yang dilakukan untuk menghasilkan buku ajar matematika yaitu sebagai berikut: a) tahap penelitian pendahuluan berupa penyebaran kuesioner dan wawancara kepada siswa dan guru SMK Diponegoro 1 Jakarta; b) tahap perencanaan dan pengembangan dengan membuat garis besar isi media (GBIM) sebagai pedoman penyusunan buku ajar; c) tahap membuat pengembangan berupa *draft* 1; d) tahap validasi oleh ahli materi dan bahasa, ahli media dan revisi produk; e) tahap uji coba lapangan kelompok kecil dan kelompok besar.

Berdasarkan validasi ahli materi dan Bahasa, serta ahli media, secara keseluruhan aspek materi dan bahasa memperoleh persentase rata-rata 89,17% yang berkategori sangat baik dan aspek media memperoleh persentase rata-rata 91% yang berkategori sangat baik. Pada hasil uji evaluasi guru, memperoleh persentase sebesar 81,15% yang berkategori sangat baik. Pada uji coba lapangan kelompok kecil secara keseluruhan memperoleh persentase rata-rata 87,88% yang berkategori sangat baik. Pada uji coba lapangan kelompok besar secara keseluruhan memperoleh persentase rata-rata 85,65% yang berkategori sangat baik. Berdasarkan validasi ahli materi dan bahasa, ahli media, evaluasi guru, uji coba lapangan kelompok kecil dan besar dapat disimpulkan bahwa buku ajar matematika dengan pendekatan *Contextual Teaching and Learning* (CTL) layak digunakan sebagai salah satu bahan ajar pada materi barisan dan deret kelas X SMK Bisnis dan Manajemen.

Kata kunci: Buku Ajar, Barisan dan Deret, SMK Bisnis dan Manajemen, Pendekatan CTL, *Research and Development*.

ABSTRACT

Ayu Dini Farhana. *The Development of Mathematics Textbooks on Sequences and Series with Contextual Teaching and Learning (CTL) Approach for Students of tenth Grade of Business and Management Vocational High School.* Undergraduate Thesis. Jakarta: Mathematics of Education Study Program, Faculty of Mathematics and Natural Science, State University of Jakarta, February, 2019.

The study aims to produce learning resources in the form of math textbooks for vocational students in the fields of business and management expertise. This textbook is made because the textbooks used by the vocational school are mostly not in accordance with the vocational curriculum based on the field of expertise, so that students can be motivated to learn mathematics in accordance with the fields of business and management expertise in sequence and series material. Based on the needs analysis, the material developed is material sequence and series with the Contextual Teaching and Learning (CTL) approach. The CTL approach has seven main components in the learning process, they are constructivism (constructivism), finding (inquiry), asking questions (questioning), learning community (learning community), modeling (reflection), reflection (authentic), and authentic assessment

This research uses research and development methods. This research goes through five stages. The conducted steps to produce mathematics textbooks are as follows: a) preliminary research stage in the form of distributing questionnaires and interviews to students and teachers of SMK Diponegoro 1 Jakarta; b) the planning and development stage by making an outline of media content (GBIM) as a guideline for the preparation of textbooks; c) the stage of making development in the form of draft 1; d) validation stage by material and language experts, media experts and product revisions; e) the stage of field trials of small groups and large groups.

Based on the validation of material and language experts, and also media experts, overall material and language aspects obtained an average percentage of 89.17% which was categorized as very good and the media aspect gained an average percentage of 91% which was categorized very well. In the results of the teacher evaluation test, it gained the percentage of 81.15% categorized as very good. In the field trials of the small group obtained an average percentage of 87.88% which was categorized as very good. In the field trials the large group obtained an average percentage of 85.65% overall which was categorized as very good. Based on the validation of material and language experts, media experts, teacher evaluations, small and large group field trials, it can be concluded that math textbooks using the CTL approach are suitable to be used as one of the teaching materials in the Xth grade sequence and series material of Business and Management Vocational High School.

Key words: Textbooks, Sequences and Series, Business and Management Vocational High School, CTL Approach, Research and Development.