ABSTRAK

MUHAMMAD DAUT SIAGIAN. Pengembangan Instrumen dan Bahan Ajar Berbasis Pendekatan Pembelajaran SAVI untuk Meningkatkan Kemampuan Koneksi Matematis Siswa SMP Kelas VIII di Kota Medan. Tesis. Medan Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan. 2014.

Penelitian ini bertujuan untuk mengetahui: 1) menyusun instrumen yang tepat untuk mengukur kemampuan koneksi matematis, 2) menyusun bahan ajar berbasis pendekatan pembelajaran SAVI yang tepat memenuhi kriteria kevalidan, kepraktisan, dan keefektifan, 3) mengetahui ketuntasan kemampuan koneksi matematis siswa setelah menggunakan bahan ajar berbasis pendekatan pembelajaran SAVI, dan 4) mengetahui kendala dalam pengembangan bajan ajar berbasis pendekatan pembelajaran SAVI. Penelitian ini merupakan penelitian pengembangan (*research and development*), produk yang dihasilkan dalam penelitian ini adalah buku pegangan guru, buku siswa lembar mari beraktivitas, rencana pelaksanaan pembelajaran (RPP), dan instrumen-instrumen seperti instrumen pengamatan kemampuan guru dalam mengelola pembelajaran, observasi aktivitas siswa, angket respon siswa dan guru, pedoman wawancara dan pengamatan sikap siswa. Pengembangan instrumen dan bahan ajar berbasis pendekatan pembelajaran SAVI ini menggunakan model 4-D yang dikembangkan oleh Thiagarajan, Semmel dan Semmel. Yang meliputi proses tahapan *define*, *desaign*, *develop*, dan *disseminate*. Namun dalam penelitian ini pengembangan bahan ajar berbasis pendekatan pembelajaran SAVI ini dibatasai hanya pada tahap *develop*, atau dimodifikasi menjadi 3-D. Subjek dalam penelitian ini adalah siswa kelas VIII-1 SMP Negeri 27 Medan dan kelas VIII-1 SMP Negeri 17 Medan. Dari hasil uji coba lapangan I dan uji coba lapangan II diperoleh: 1) bahan ajar yang memenuhi kriteria kevalidan dengan predikat sangat valid, 2) bahan ajar yang praktis berdasakan hasil revisi dari tim ahli, hasil observasi pada saat proses pembelajaran dan hasil wawancara, serta 3) memenuhi kriteria keefektifan berdasarkan hasil pengamatan kemampuan guru dalam mengelola pembelajaran, pencapaian persentase waktu ideal, hasil tes kemampuan koneksi matematis memenuhi ketuntasan, dan dari hasil angket respon guru dan siswa.

Kata Kunci: Bahan Ajar, Pendekatan SAVI, Model Pengembangan 4-D, Kemampuan Koneksi Matematis.

ABSTRACT

MUHAMMAD DAUT SIAGIAN. The Development of Instrument and Learning Material Based on SAVI Learning Approach to Improve the Ability of Student's Mathematical Connection for VIII Grade Student's

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This study aims to determine: 1) to compose the appropriate instruments to measure the ability of mathematical connections, 2) to compose the teaching materials based on SAVI learning approach right that meet the criteria of validity, practicality and effectiveness, 3) to determine student's mastery of mathematical connection ability after using teaching material SAVI based learning approach, and 4) to determine the obstacles in the development of teaching materials based on SAVI learning approach. This study is a research and development, the products that produced in this study is the handbook of teachers, student books, sheet let's move, lesson plan (RPP), and instruments such as observation instruments teachers ability to manage learning, student activity observation, questionnaire responses student and teachers, interview, and observation of student attitudes. Instrument development and teaching materials based on SAVI learning approach uses 4-D models developed by Thiagaran, Semmel and Semmel. Which includes the stages define, design, develop, and disseminate. But in this study the development of teaching materials based on SAVI learning approach is restricted to the stages develop, or modified into a 3-D. Subjects in this study were students of class VIII-1 SMP Negeri 27 Medan and class VIII-1 SMP Negeri 17 Medan. From the results of field trials I and field trials II obtained: 1) teaching materials that meet the criteria of validity with very valid predicate, 2) practical teaching materials based on the results from revision team of experts, the results of observations during the learning process, and interviews, as well as 3) meet the criteria of effectiveness based on the results observations, the teachers ability to manage learning, achievement percentage ideal time, the test results meet the thoroughness mathematical connection ability, and from the results of the questionnaire responses of teachers and students.

Keywords: Teaching Materials, SAVI Approaches, 4-D Development Model, The Ability of Mathematical Connections.