

ABSTRAK

MAWARNI NEHE. Pengembangan Perangkat Pembelajaran Berbasis *Contextual Teaching Learning* (CTL) Berbantuan *Autograph* untuk Meningkatkan Kemampuan Pemecahan Masalah Matematika Siswa Kelas X di SMA Negeri 1 Telukdalam. Tesis Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan, 2017.

Penelitian ini bertujuan untuk: 1) Pengembangan perangkat pembelajaran yang valid, praktis, efektif berbasis CTL berbantuan *autograph*; 2) Peningkatan kemampuan pemecahan masalah siswa SMA Negeri 1 Telukdalam dengan menggunakan perangkat pembelajaran yang sudah dikembangkan dan berbasis CTL berbantuan *autograph*. Penelitian ini merupakan penelitian pengembangan (*research and development*). Pengembangan perangkat pembelajaran berbasis CTL ini menggunakan model 4-D yang meliputi proses tahapan *define, design, develop, dan disseminate*. Hasil tahap pendefinisian digunakan untuk merancang perangkat pembelajaran. Selanjutnya draf hasil rancangan divalidasi dan diuji coba kelapangan untuk melihat kepraktisan dan efektivitasnya. Uji coba I di KELAS X-IA1 dan uji coba II di kelas X-IA3. Dari hasil uji coba diperoleh bahwa: (1) Perangkat pembelajaran telah memenuhi kriteria valid dengan rata-rata total validitas RPP = 4,506, Buku Siswa = 4,687, LKS = 4,412. Tes kemampuan pemecahan masalah dalam kategori valid dengan reliabilitas sebesar 0,87; 2) Perangkat pembelajaran memenuhi kriteria praktis, ditinjau dari (a) penilaian terhadap kemampuan guru melaksanakan pembelajaran kategori sangat baik; (b) penilaian terhadap kemampuan siswa mengikuti pembelajaran kategori sangat baik; 3) perangkat pembelajaran memenuhi kriteria keefektifan berdasarkan hasil tes kemampuan pemecahan masalah matematika siswa memenuhi ketuntasan klasikal, pencapaian persentase waktu ideal, dan hasil angket respon siswa, 4) rata-rata peningkatan kemampuan pemecahan masalah matematika siswa dari uji coba I ke uji coba II adalah 0,47 poin.

Kata Kunci: Perangkat Pembelajaran, Pendekatan CTL, *software autograph*, Model Pengembangan 4-D, Kemampuan Pemecahan Masalah Matematika Siswa.



ABSTRACT

MAWARNI NEHE. The Development of Learning Device Based Contextual Teaching Learning (CTL) Assisted Autograph to Improve The Ability of Problem Solving Mathematics Class X SMA Negeri 1 Telukdalam. Thesis of Mathematics and Education Study Program Postgraduate State University of Medan, 2017.

This research study aims to describe: 1) Development of learning validity, practicality, effectiveness devices based CTL with autograph aid; 2) increase problem solving skills by problem based learning model developed. This research is a research development (research and development). The development of CTL based learning used 4-D model which include define, design, develop, and disseminate. The results of the defining phase is used to design a learning instruments. Then this draft is validated and teste in classroom to see its practically and effectiveness. The tes is done in class X SMA Negeri 1 Telukdalam. This research used students in class X-IA1 and X-IA3. From this development obtained that; (1) learning instruments developed is valid criteria with the average validity total of lesson plan = 4.506, Student's Book = 4.687, worksheet = 4.412. Test problem-solving abilities in valid categories with reliability of 0.87; 2) Learning intruments satisfy practice criteria based on (a) assessment of teachers' ability to implement excellent category learning; (b) assessment of students' ability to follow excellent category learning; 3) learning instruments is effective based on the results of student's mathematical problem-solving skills tests meet the classical completeness, the achievement of the ideal percentage of time, and the results of questionnaire responses of students, 4) the increasing of problem solving skills of student's from first to second test was 0.47 points.

Keywords: Learning Tool, CTL approach, software autograph, 4-D Model Development, Mathematical Problem Solving Ability Students.

