

## ABSTRAK

**RUTH MEIVERA SIBURIAN. Pengembangan Bahan Ajar Matematika Berdasarkan Pembelajaran Berbasis Masalah untuk Meningkatkan Kemampuan Berpikir Kreatif Matematis Siswa SMP Nasrani 5 Medan.** Tesis. Medan: Program Pascasarjana Universitas Negeri Medan, 2016.

Penelitian bertujuan untuk: (1) mengembangkan bahan ajar matematika yang memenuhi persyaratan validitas, kepraktisan dan efektif, (2) mengetahui peningkatan kemampuan berpikir kreatif matematis siswa kelas VII SMP Nasrani 5 Medan melalui bahan ajar matematika yang dikembangkan berdasarkan pembelajaran berbasis masalah. Penelitian ini merupakan penelitian pengembangan menggunakan desain model 4-D. Desain ini terdiri dari 4 tahap yaitu pendefinisian, perancangan, pengembangan dan penyebarluasan. Hasil tahap pendefinisian digunakan untuk merancang bahan ajar. Kemudian draf hasil rancangan divalidasi dan diuji coba. Uji coba bahan ajar dilakukan pada siswa kelas VII SMP Dwiwarna Medan. Bahan ajar yang valid, praktis dan efektif kemudian disebar ke kelas lain untuk menguji keefektifan sebelum disebar lebih luas. Penyebaran dilakukan pada siswa kelas VII SMP Nasrani 5 Medan. Dari hasil analisis pengembangan diperoleh bahwa: (1) Bahan ajar yang dikembangkan valid dengan rata-rata total validitas rpp = 4,14, buku guru = 3,95, dan buku siswa = 4,03; praktis ditinjau dari tingkat kemampuan guru melaksanakan pembelajaran; efektif ditinjau dari tingkat aktivitas siswa, ketuntasan belajar dan respon positif siswa. (2) Bahan ajar yang dikembangkan efektif untuk meningkatkan kemampuan berpikir kreatif matematis siswa dengan nilai gain sebesar 0,463.

*Kata kunci: Pengembangan bahan ajar, pembelajaran berbasis masalah, berpikir kreatif.*

## ABSTRACT

**RUTH MEIVERA SIBURIAN. Development Mathematics Teaching Material Based on Problem Based Learning to Enhance the Ability of Mathematical Creative Thinking of Nasrani 5 Middle School Student.** Thesis. Medan: The Postgraduate Program, State University of Medan, 2016.

The thesis aims to: (1) develop a mathematical teaching materials that meet the requirements of validity, practical and effective, (2) to know increase the ability of mathematical creative thinking student in class VII Nasrani 5 Medan Middle School through mathematics teaching materials are developed based on problem-based learning. This thesis is a development that uses 4-D design models. This design consists of four stages: defining, designing, development and dissemination. The results of the definition phase is used to design teaching materials. Then draft the design is validated and tested. The trials of teaching material is done in class VII Dwiwarna Medan Middle School. Valid teaching materials, practical and effective then propagated to the other classes to test the effectiveness before being disseminated more widely. Spreading is done in class VII Nasrani 5 Medan. From the development analysis shows that: (1) a teaching materials is valid by the total average validity of lesson plan = 4.14, teacher book = 3.95 and student book = 4.03; practical in terms of ability teacher's level to implement learning; effective in terms of activity of students's level, completeness learning and positive response student. (2) The teaching materials developed effective to improve the ability of mathematical creative thinking student with a value gain is 0.463.

Keywords: Development of teaching materials, problem-based learning, creative thinking.