

ABSTRAK

NANDA YULIA. Pengembangan Bahan Ajar Berdasarkan Model Pembelajaran Berbasis Masalah Untuk Meningkatkan Kemampuan Berpikir Kritis Matematis dan *Self Efficacy* Siswa Kelas VIII SMP Negeri 1 Besitang. Tesis. Medan: Program Studi Pendidikan Matematika Program Pascasarjana Universitas Negeri Medan. 2020

Penelitian ini bertujuan untuk: 1) Mendeskripsikan kevalidan, kepraktisan dan efektivitas bahan ajar berdasarkan pembelajaran berbasis masalah yang dikembangkan terhadap peningkatan kemampuan berpikir kritis matematis dan *self efficacy* siswa kelas VIII SMP Negeri 1 Besitang; 2) Mendeskripsikan peningkatan kemampuan berpikir kritis matematis siswa dengan menggunakan bahan ajar berdasarkan pembelajaran berbasis masalah yang telah dikembangkan; 3) Mendeskripsikan *self efficacy* siswa dengan menggunakan bahan ajar berdasarkan pembelajaran berbasis masalah yang telah dikembangkan. Subjek dalam penelitian ini adalah siswa kelas VIII-1 dan VIII-2 SMP Negeri 1 Besitang tahun pelajaran 2019/2020 yang masing-masing terdiri dari 34 siswa. Jenis penelitian ini adalah penelitian pengembangan (*Development Research*). Pada penelitian ini, peneliti akan mengembangkan bahan ajar matematika berdasarkan model pembelajaran berbasis masalah, yang meliputi Buku Siswa (BS), dan Lembar Kegiatan Siswa (LKS). Instrument penelitian yang akan dikembangkan terdiri dari tes kemampuan berpikir kritis matematis dan angket *self efficacy*. Hasil penelitian menunjukkan bahwa: 1) Bahan ajar berdasarkan pembelajaran berbasis masalah dalam meningkatkan kemampuan berpikir kritis matematis dan *self-efficacy* siswa yang dikembangkan sudah memenuhi kriteria valid, praktis dan efektif 2) Peningkatan kemampuan berpikir kritis matematis menggunakan perangkat pembelajaran berdasarkan pembelajaran berbasis masalah yang telah dikembangkan dilihat dari nilai rata-rata *N-gain* 0,45 artinya berada dalam kategori “sedang”. 3) Rata-rata dan standard deviasi kemampuan *self efficacy* matematis siswa pada uji coba I secara keseluruhan masing-masing adalah 77,17 dan 10,13, sedangkan rata-rata dan standard deviasi kemampuan *self efficacy* matematis siswa pada uji coba II secara keseluruhan masing-masing adalah 79,76 dan 9,88.

Kata Kunci: Pengembangan bahan ajar, kemampuan berpikir kritis matematis, *self-efficacy*, model pembelajaran berbasis masalah

ABSTRACT

NANDA YULIA. Development of Teaching Materials Based on Model Problem Based Learning to Improve Mathematical Critical Thinking Ability and Self Efficacy of Students of Class VIII Junior High School 1 Besitang. Thesis. Medan: Mathematics Education Postgraduate Programme, State University Of Medan, 2020.

This study aims to: 1) Describe the validity, practicality and effectiveness of teaching materials based on problem-based learning that was developed to improve the ability to think critically mathematically and self-efficacy of class VIII students of SMP Negeri 1 Besitang; 2) Describe the improvement of students' mathematical critical thinking ability by using teaching materials based on problem based learning that has been developed; 3) Describe students' self efficacy by using teaching materials based on problem based learning that has been developed. The subjects in this study were students of class VIII-1 and VIII-2 of SMP Negeri 1 Besitang in 2019/2020 school year, each consisting of 34 students. This type of research is development research. In this study, researchers will develop mathematics teaching materials based on model problem based learning, which include Student Books (BS), and Student Activity Sheets (LKS). The research instrument that will be developed consists of a mathematical critical thinking ability test and a self efficacy questionnaire. The results showed that: 1) Teaching materials based on problem based learning in improving students' mathematical critical thinking ability and self efficacy that have been developed already meet the valid, practical and effective criteria 2) Improvement of mathematical critical thinking skills using learning tools based on problem based learning that has been developed viewed from the average value N-gain 0,45 means that it is in the "medium" category. 3) Mean and standard deviation of students' mathematical self efficacy abilities overall in trial I, each was 77,17 and 10,13, while mean and standard deviation of the students' mathematical self-efficacy abilities overall in trial II, each was 79,76 and 9,88.

Keywords: *Development of teaching materials, mathematical critical thinking ability, self-efficacy, model problem based learning*

