

## ABSTRAK

Penelitian ini bertujuan untuk mendeskripsikan: (1) Kualitas perangkat pembelajaran perangkat pembelajaran berbasis pendekatan *open ended* berbantuan autograph, meliputi valid, praktis dan efektif; (2) Peningkatan kemampuan berpikir kreatif matematis siswa setelah menggunakan perangkat pembelajaran berbasis pendekatan *open ended* berbantuan autograph; (3) Pencapaian *self-concept* siswa setelah menggunakan perangkat pembelajaran berbasis pendekatan *open ended* berbantuan autograph; dan (4) Perbedaan kemampuan berpikir kreatif matematis dan *self-concept* siswa yang menggunakan perangkat pembelajaran berbasis pendekatan *open ended* berbantuan autograph dengan siswa yang diajarkan dengan pembelajaran biasa. Jenis penelitian yang digunakan adalah penelitian pengembangan dengan menggunakan model 4-D. Ujicoba dilakukan pada siswa kelas VIII siswa di SMP Swasta Imelda Medan. Perangkat pembelajaran yang dikembangkan adalah RPP, buku guru, buku siswa, LKS, dan tes kemampuan berpikir kreatif. Dari hasil ujicoba I dan ujicoba II diperoleh: (1) Kualitas perangkat pembelajaran meliputi (a) validitas perangkat pembelajaran menurut tim ahli adalah valid dengan masing-masing nilai 4,06; 4,08; 4,05; 4,06; dan tes kemampuan berpikir kreatif sudah valid dengan koefisien reliabilitas=0,573; (b) perangkat yang dikembangkan telah memenuhi kepraktisan perangkat pembelajaran dengan rata-rata nilai keterlaksanaan perangkat pembelajaran adalah 3,54 (kategori kepraktisan tinggi) dengan nilai realibilitas 97,5 (baik); (c) perangkat yang dikembangkan telah efektivitas, dimana: persentase ketuntasan belajar siswa adalah 86,67% secara klasikal dari 30 orang siswa yang mengikuti tes dengan nilai minimal 71; pencapaian tujuan pembelajaran juga tercapai dengan masing-masing indikator 82,21%; 77,29%; 77,08%; dan 76,88%; dan respon siswa terhadap proses pembelajaran sudah positif pada ujicoba I maupun ujicoba II; (2) Terjadi peningkatan rata-rata kemampuan berpikir kreatif matematis dari ujicoba I ke ujicoba II sebesar 4,44; (3) Terjadi perubahan sikap *self-concept* siswa dari ujicoba I ke ujicoba II yaitu sebesar 27,6%; dan (4) Kemampuan berpikir kreatif matematis dan *self-concept* siswa yang menggunakan perangkat pembelajaran berbasis pendekatan *open ended* berbantuan autograph lebih baik daripada siswa yang diajarkan dengan pembelajaran biasa.

**Kata kunci:** Pengembangan Perangkat Pembelajaran, Model 4D, *Open Ended*, Autograph, Berpikir Kreatif Matematis, *Self-Concept*.

## ABSTRACT

This study aims to describe: (1) The quality of learning devices based on an open ended approach assisted by autograph, including valid, practical and effective; (2) Improvement of students' creative mathematical thinking skills after using learning tools based on an assisted open ended approach to autograph; (3) Achievement of student self-concept after using learning tools based on an open ended assisted approach to autograph; and (4) Differences in mathematical creative thinking skills and students' self-concepts that use open-ended learning tools based on autographs with students taught with ordinary learning. The type of research used is development research using a 4-D model. The trial was conducted on class VIII students at SMP Swasta Imelda Medan. Learning tools developed are lesson plans, teacher books, student books, worksheets, and tests of creative thinking skills. From the results of trial I and trial II obtained: (1) The quality of learning devices includes (a) the validity of learning devices according to the expert team is valid with each value 4.06; 4.08; 4.05; 4.06; and the test of creative thinking ability is valid with a reliability coefficient = 0.573; (b) the devices developed have met the practicality of learning devices with the average value of the learning device implementation being 3.54 (high practicality category) with a reliability value of 97.5 (good); (c) the device developed has effectiveness, where: the percentage of students' mastery learning is 86.67% in a classical manner out of 30 students who take the test with a minimum value of 71; achievement of learning objectives is also achieved with each indicator 82.21%; 77.29%; 77.08%; and 76.88%; and students' responses to the learning process have been positive in trial I and trial II; (2) There was an increase in the average mathematical creative thinking ability from trial I to trial II of 4.44; (3) Changes in students' self-concept attitudes from the first trial to the second trial were 27.6%; and (4) The ability of mathematical creative thinking and the self-concept of students who use learning tools based on an open-ended approach assisted by autographs is better than students taught with ordinary learning.

**Keywords:** Development of Learning Devices, 4D Models, Open Ended, Autograph, Mathematical Creative Thinking, Self-Concept.