

ABSTRAK

Widiana Maudy, 1212050185, 2025, “Peningkatan Kemampuan Berpikir Kritis Matematis dan *Mathematical Habits of Mind* melalui Model Pembelajaran M-APOS (*Modification, Action, Process, Object, Schema*)”

Penelitian ini dilatarbelakangi oleh kemampuan berpikir kritis matematis siswa yang masih perlu ditingkatkan. Model Pembelajaran M-APOS (*Modification, Action, Process, Object, Schema*) menjadi alternatif untuk meningkatkan kemampuan berpikir kritis matematis siswa dan *mathematical habits of mind*. Metode yang digunakan adalah kuasi eksperimen dengan desain *Non-equivalent Control Group Design*. Subjek terdiri dari dua kelas yang diberi perlakuan berbeda: kelas eksperimen menggunakan model pembelajaran M-APOS dan kelas kontrol menggunakan pembelajaran konvensional. Subjek penelitian ini adalah peserta didik kelas VII sekolah menengah pertama dan sampel penelitian ini terdiri dari dua kelas yang dipilih secara tidak acak. Instrumen utama penelitian ini yaitu tes kemampuan berpikir kritis matematis dengan validitas dan reliabilitas berkategori tinggi. Tujuan dari penelitian ini untuk mengetahui: (a) Keterlaksanaan proses pembelajaran, (b) Peningkatan kemampuan berpikir kritis matematis siswa (c) *Mathematical habits of mind* siswa model pembelajaran M-APOS dengan pembelajaran konvensional. Hasil dari penelitian ini yaitu: (a) Keterlaksanaan proses pembelajaran dikategorikan baik, (b) Peningkatan kemampuan berpikir kritis matematis siswa dengan model M-APOS lebih baik dibandingkan siswa dengan pembelajaran konvensional, (c) *Mathematical habits of mind* siswa dengan model M-APOS lebih baik dibandingkan siswa dengan pembelajaran konvensional.

Kata Kunci: Kemampuan Berpikir Kritis Matematis, M-APOS (*Modification, Action, Process, Object, Schema*), *Mathematical Habits of Mind*,

ABSTRACT

Widiana Maudy, 1212050185, 2025, “Enhancing Mathematical Critical Thinking Ability and Mathematical Habits of Mind through the M-APOS (Modification, Action, Process, Object, Schema) Learning Model”

This research was motivated by the observed need to enhance students' mathematical critical thinking skills, which remain at a suboptimal level. The M-APOS (Modification, Action, Process, Object, Schema) learning model is proposed as an alternative approach to improve students' mathematical critical thinking abilities as well as their mathematical habits of mind. This study employed a quasi-experimental method with a Non-Equivalent Control Group Design. The participants consisted of two classes that received different instructional treatments: the experimental group was taught using the M-APOS learning model, while the control group received conventional instruction. The subjects of this study were seventh-grade students from a junior high school, selected through non-random (purposive) sampling. The primary research instrument was a mathematical critical thinking skills test, which was validated and found to have a high level of validity and reliability. The objectives of this study were to examine: (a) the implementation of the learning process, (b) the improvement of students' mathematical critical thinking skills, and (c) the mathematical habits of mind of students taught using the M-APOS learning model in comparison with those taught through conventional methods. The findings of the study revealed that: (a) the learning process was implemented effectively, (b) students taught using the M-APOS model showed greater improvement in mathematical critical thinking skills than those in the conventional group, and (c) students in the M-APOS group demonstrated more developed mathematical habits of mind compared to their counterparts in the control group.

Keywords: *M-APOS (Modification, Action, Process, Object, Schema), Mathematical Critical Thinking Ability, Mathematical Habits of Mind.*