

**PENGEMBANGAN MEDIA *LEGO* BERBASIS *CODING*
UNTUK MENINGKATKAN *COMPUTATIONAL THINKING* SISWA
MUATAN MATEMATIKA KELAS V SD**

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ABSTRAK

Penelitian ini bertujuan mengembangkan dan menganalisis rancang bangun, validitas, kepraktisan, serta efektivitas media pembelajaran *Lego* berbasis *Coding* dalam meningkatkan *computational thinking* siswa kelas V pada materi bangun ruang. Penelitian ini merupakan *Research and Development* (R&D) dengan model ADDIE yang meliputi tahap *analyze, design, development, implementation, dan evaluation*. Uji coba menggunakan desain *one group pretest-posttest* pada 22 siswa. Data dikumpulkan melalui validasi ahli media dan materi, angket respon guru dan siswa, serta angket *computational thinking*. Hasil menunjukkan media sangat valid berdasarkan penilaian ahli materi dan ahli media dengan nilai 3,65 dan 3,83, sangat praktis (respon guru 89,5% dan respon siswa 89%), serta efektif meningkatkan *computational thinking* siswa. Peningkatan terlihat dari rata – rata skor *pretest* 64,77 menjadi 80,91 pada skor *posttest* dengan uji *one group pretest-posttest*. Dengan demikian, media *Lego* berbasis *coding* layak digunakan sebagai media pembelajaran Matematika di sekolah dasar.

Kata Kunci : Media pembelajaran *lego, coding, computational thinking, matematika, sekolah dasar*

**DEVELOPMENT OF LEGO-BASED CODING MEDIA TO IMPROVE
STUDENTS' COMPUTATIONAL THINKING IN MATHEMATICS FOR
FIFTH GRADE ELEMENTARY SCHOOL**

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ABSTRACT

This study aims to develop and analyze the validity, practicality, and effectiveness of Lego-based coding learning media in improving the computational thinking skills of fifth-grade students on solid geometry material. This research employs a Research and Development (R&D) approach using the ADDIE model, which consists of the stages of analyze, design, development, implementation, and evaluation. The trial was conducted using a one-group pretest–posttest design involving 22 students. Data were collected through expert validation, teacher and student response questionnaires, and a computational thinking questionnaire. The results show that the media is highly valid based on material and media expert assessments, with scores of 3.65 and 3.83, respectively. It is also highly practical (teacher response of 89.5% and student response of 89%), and effective in improving students' computational thinking. The improvement is indicated by the increase in the average pretest score from 64.77 to 80.91 in the posttest using the one-group pretest–posttest design. Therefore, Lego-based coding media is suitable for use as a learning medium in elementary school mathematics.

Keywords : Lego learning media, coding, computational thinking, mathematics, elementary school