ABSTRAK

Wikasari, Ayu (2024), *Pengembangan LKPD Berbantuan Scratch Untuk Meningkatkan Kemampuan Computational Thinking Siswa SMP*. Tesis. Pendidikan Matematika, Program Pascasarjana, Universitas Pendidikan Ganesha.

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Kata-kata kunci : LKPD, *Scratch*, *Computational Thinking*

Penelitian ini bertujuan untuk menghasilkan LKPD berbantuan *scratch* yang valid, praktis dan efektif untuk meningkatkan kemampuan *Computational Thinking* siswa. Penelitian ini merupakan penelitian desain yang menggunakan prosedur penelitian dari Plomp yaitu *Preliminary Research*, *Prototyping*, dan *Assessment*. Subjek penelitian adalah siswa kelas VIII SMP AMI Denpasar dengan rincian kelas VIII C (uji coba terbatas) sebanyak 10 siswa, kelas VIII A (uji coba lapangan I) sebanyak 21 siswa, dan kelas VIII B (uji coba lapangan II) sebanyak 22 siswa. Instrumen penelitian yang digunakan yaitu lembar validasi, angket respon siswa, angket respon guru dan tes untuk mengukur kemampuan *computational thinking* siswa. Hasil penelitian menunjukkan LKPD berbantuan *scratch* yang valid yaitu dengan rata-rata skor 3,89 dengan kriteria sangat valid. Hasil dari angket respon guru dengan persentase 90% kategori sangat praktis dan angket respon siswa dengan persentase yaitu 83% kategori praktis. Rata-rata tes kemampuan *computational thinking* diperoleh melebih KKM yang ditetapkan yaitu 75 sehingga LKPD berbantuan *scratch* dinyatakan efektif. LKPD berbantuan *scratch* memberikan siswa kesempatan untuk melakukan proses pemecahan masalah melalui dekomposisi, pengenalan pola, abstraksi, dan algoritma. Siswa dapat mengeksplor program *scratch* secara langsung serta membuat proyek sendiri berdasarkan masalah yang diberikan sehingga dapat meningkatkan kemampuan *computational thinking.*

ABSTRACT

Wikasari, Ayu (2024), Development of Scratch-assisted LKPD to Improve Computational Thinking Ability of Junior High School Students. Thesis. Mathematics Educatiom, Graduate Program, Ganesha University of Education.

This thesis has been approved and checked by first Advisor : Dr. Gede Suweken, M.Sc. and second Advisor : Prof. Dr. I Nengah Suparta, M.Si.

Keywords: Student Worksheet, Scratch, Computational Thinking

This study aims to produce a Scratch-assisted student worksheet (LKPD) that is valid, practical, and effective in enhancing students' Computational Thinking skills. This research is a design study using Plomp's research procedure, which includes Preliminary Research, Prototyping, and Assessment. The subjects of the study were eighth-grade students from SMP AMI Denpasar, consisting of class VIII C (limited trial) with 10 students, class VIII A (field trial I) with 21 students, and class VIII B (field trial II) with 22 students. The research instruments used were validation sheets, student response questionnaires, teacher response questionnaires, and tests to measure students' computational thinking skills. The results showed that the Scratch-assisted LKPD was valid, with an average score of 3.89 in the very valid criteria. The results from the teacher response questionnaire showed a 90% percentage in the very practical category, and the student response questionnaire showed an 83% percentage in the practical category. The average computational thinking skills test score exceeded the established minimum competency criteria (KKM) of 75, indicating that the Scratch-assisted LKPD was effective. The scratch-assisted LKPD provides students with the opportunity to carry out the problem solving process through decomposition, pattern recognition, abstraction, and algorithms. Students can explore the scratch program and create their own projects based on the problems given so as to improve computational thinking skills.