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MODUL PEMROGRAMAN SCRATCH MATERI BANGUN DATAR UNTUK MENGEMBANGKAN KEMAMPUAN BERPIKIR KOMPUTASIONAL DI SEKOLAH DASAR

SKRIPSI

diajukan untuk memenuhi sebagian syarat untuk memperoleh
gelar Sarjana Pendidikan Program Studi Pendidikan Guru Sekolah Dasar

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UNIVERSITAS PENDIDIKAN INDONESIA
KAMPUS TASIKMALAYA

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ANIS RAHMAWATI

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ABSTRAK

Perkembangan abad 21 telah mendorong percepatan teknologi di dunia pendidikan. Namun penerapan ini belum sepenuhnya optimal, hal tersebut dapat dilihat dari kemampuan peserta didik yang cenderung rendah khususnya pada mata pelajaran matematika dan informatika. Permasalahan tersebut disebabkan oleh keterbatasan bahan ajar yang digunakan selama pembelajaran. Oleh karena itu penelitian ini bertujuan untuk mengembangkan modul pemrograman Scratch materi bangun datar yang diharapkan bisa membantu mengembangkan kemampuan berpikir komputasional peserta didik. Penelitian ini menggunakan metode *Educational Desain Research* yang meliputi tahapan *analysis and exploration*, *desain and construction*, dan *evaluation and reflection*. Pengumpulan data pada penelitian ini dilakukan melalui wawancara, observasi, studi dokumentasi, penilaian ahli, serta angket respons peserta didik dan pendidik. Adapun hasil validasi yang diperoleh dari ahli materi matematika sebesar 77,77% dengan kategori layak, ahli materi informatika memperoleh skor 86,66% dengan kategori sangat layak, ahli media pembelajaran memperoleh skor 90% dengan kategori sangat layak, ahli pemrograman memperoleh skor 96,92% dengan kategori sangat layak, dan ahli pedagogis memperoleh skor 76% dengan kategori layak. Selain itu, validitas dari hasil angket respons peserta didik pada tahap uji coba terbatas dan uji coba luas memperoleh skor 92,13% dengan kategori sangat layak dan respons pendidik memperoleh skor 100% dengan kategori sangat layak. Berdasarkan hasil tersebut dapat disimpulkan bahwa modul pemrograman Scratch materi bangun datar layak untuk digunakan pada kegiatan pembelajaran untuk mengembangkan kemampuan berpikir komputasional di Sekolah Dasar.

Kata Kunci: Berpikir Komputasional, Modul, Scratch, Sekolah Dasar.

ABSTRACT

The development of the 21st century has encouraged the acceleration of technology in the world of education. However, this application has not been fully optimal, this can be seen from the ability of students who tend to be low, especially in mathematics and informatics subjects. This problem is caused by the limitations of teaching materials used during learning. Therefore, this research aims to develop a Scratch programming module for flat building materials that is expected to help develop students' computational thinking skills. This study uses the Educational Design Research method which includes the stages of analysis and exploration, design and construction, and evaluation and reflection. Data collection in this study was carried out through interviews, observations, documentation studies, expert assessments, and questionnaires of student and educator responses. The validation results obtained from mathematics material experts were 77.77% with the feasible category, informatics material experts obtained a score of 86.66% with the very feasible category, learning media experts obtained a score of 90% with the very feasible category, programming experts obtained a score of 96.92% with the very feasible category, and pedagogical experts obtained a score of 76% with the feasible category. In addition, the validity of the results of the student response questionnaire at the limited trial and wide trial stage obtained a score of 92.13% with the very feasible category and the educator response obtained a score of 100% with the very feasible category. Based on these results, it can be concluded that the Scratch programming module is suitable for use in learning activities to develop computational thinking skills in elementary schools.

Keywords: *Computational Thinking, Module, Scratch, Elementary School.*

DAFTAR ISI

DAFTAR TABEL

DAFTAR GAMBAR

DAFTAR LAMPIRAN

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