

ABSTRAK

Lenni Sari Pakpahan, NIM 4173111039 (2022). Pengembangan Buku Digital Berbasis Pendekatan Saintifik untuk Meningkatkan Kemampuan Berpikir Kreatif Matematis Siswa Kelas VIII Smp Gajah Mada.

Penelitian ini bertujuan untuk memperoleh bahan ajar interaktif berupa buku digital berbasis pendekatan saintifik yang valid, praktis, dan efektif, sehingga dapat meningkatkan kemampuan berpikir kreatif matematis siswa pada materi lingkaran. Instrumen penelitian yang digunakan adalah lembar validasi angket, lembar validasi RPP, lembar validasi buku digital, lembar validasi instrumen tes, tes kemampuan berpikir kreatif matematis, serta angket respon guru dan siswa terhadap buku digital. Setelah seluruh instrumen, RPP, dan buku digital dinyatakan valid oleh validator, kemudian dilakukan uji keterbacaan dan uji coba lapangan. Hasil penelitian menunjukkan bahwa: (1) buku digital berbasis pendekatan saintifik yang dikembangkan telah memenuhi kriteria kevalidan berdasarkan penilaian validator dengan rata-rata validitas buku digital untuk materi adalah 3,25 dan 3,49 untuk media dengan kategori sangat layak; (2) buku digital berbasis pendekatan saintifik yang dikembangkan telah memenuhi kriteria kepraktisan melalui: a) hasil angket respon siswa terhadap buku digital menunjukkan persentase kepraktisan 79,75% dengan kategori sangat praktis, b) hasil angket respon guru terhadap buku digital menunjukkan persentase kepraktisan 91,68% dengan kategori sangat praktis; (3) buku digital berbasis pendekatan saintifik yang dikembangkan memenuhi kriteria efektif dengan: a) tercapainya kemampuan berpikir kreatif sebesar 81,56 dengan kategori kreatif, b) lebih dari 65% siswa telah mencapai 75% tujuan pembelajaran untuk setiap indikator, c) peningkatan hasil analisis N-Gain sebesar 30% siswa mengalami peningkatan yang tinggi dan 70% siswa mengalami peningkatan yang sedang.

Kata Kunci: Buku digital, pendekatan saintifik, kemampuan berpikir kreatif matematis, lingkaran.

ABSTRACT

Lenni Sari Pakpahan, NIM 4173111039 (2022). The Development of Digital Book Based on Scientific Approach to Improve Mathematical Creative Thinking Skills for Class VIII SMP Gajah Mada.

This study aims to obtain interactive teaching materials in the form of digital books based on scientific approaches that are valid, practical, and effective, so as to improve students' mathematical creative thinking skills in circle material. The research instruments used were questionnaire validation sheets, lesson plans validation sheets, digital book validation sheets, test instrument validation sheets, mathematical creative thinking ability tests, and teacher and student response questionnaires to digital books. After all instruments, lesson plans, and digital books were declared valid by the validator, then readability tests and field trials were carried out. The results of the study indicate that: (1) the digital book based on the scientific approach that was developed has met the criteria for validity based on the validator's assessment with the average validity of the digital book for the material being 3.25 and 3.49 for media with a very decent category; (2) the scientific approach-based digital book developed has met the practicality criteria through: a) the results of the student response questionnaire to digital books show the percentage of practicality of 79.75% with a very practical category, b) the results of the teacher's questionnaire response to digital books show the percentage of practicality 91,68% with very practical category; (3) the scientific approach-based digital book developed meets the effective criteria by: a) the achievement of creative thinking skills of 81.56 in the creative category, b) more than 65% of students have achieved 75% of the learning objectives for each indicator, c) increased results N-Gain analysis of 30% of students experienced a high increase and 70% of students experienced a moderate increase.

Keywords: Digital book, scientific approach, mathematical creative thinking ability, circle.

