

ABSTRAK

Putri Tipakaden Guci, NIM 4173111064 (2024). Pengembangan Bahan Ajar Digital Berbasis Pendekatan Saintifik untuk Meningkatkan Kemampuan Spasial Pada Materi Kubus Siswa Kelas VIII SMP Muhammadiyah 1 Medan.

Penelitian ini bertujuan untuk mengetahui tingkat kevalidan, kepraktisan, dan keefektifan bahan ajar digital berbasis pendekatan saintifik, sehingga dapat meningkatkan kemampuan spasial siswa pada materi kubus. Jenis penelitian ini adalah penelitian pengembangan dengan model pengembangan ADDIE. Instrumen penelitian dalam penelitian seperti lembar validasi angket, lembar validasi RPP, lembar validasi bahan ajar digital, lembar validasi instrumen tes, tes kemampuan spasial, serta angket respon guru dan siswa terhadap bahan ajar digital. Hasil penelitian menunjukkan bahwa: (1) bahan ajar digital berbasis pendekatan saintifik yang dikembangkan telah memenuhi kriteria kevalidan berdasarkan penilaian validator dengan rata-rata validitas bahan ajar digital untuk materi adalah 3,44 dan 3,82 untuk media dengan kategori sangat layak; (2) bahan ajar digital berbasis pendekatan saintifik yang dikembangkan telah memenuhi kriteria kepraktisan melalui: a) hasil angket respon siswa terhadap bahan ajar digital menunjukkan persentase kepraktisan 82,75% dengan kategori sangat praktis, b) hasil angket respon guru terhadap bahan ajar digital menunjukkan persentase kepraktisan 91,67% dengan kategori sangat praktis; (3) Bahan ajar digital berbasis pendekatan saintifik yang dikembangkan memenuhi kriteria efektif dengan: a) ketuntasan belajar siswa secara klasikal sebesar 90%, b) lebih dari 65% siswa telah mencapai 75% tujuan pembelajaran untuk setiap indikator, c) meningkatnya kemampuan spasial siswa setelah menggunakan bahan ajar digital yang dilihat melalui nilai rata-rata siswa meningkat dari 47,67 pada *pretest* menjadi 86,50 pada *posttest*. Hasil analisis N-Gain yang menunjukkan kemampuan spasial siswa mengalami peningkatan sebesar 0,725 artinya dalam kategori tinggi.

Kata Kunci: Bahan ajar digital, pendekatan saintifik, kemampuan spasial, kubus.

ABSTRACT

Putri Tipakaden Guci, NIM 4173111064 (2024). Development of Digital Teaching Materials Based on a Scientific Approach to Improve Spatial Abilities in Class VIII Students of SMP Muhammadiyah 1 Medan.

This research aims to determine the level of validity, practicality and effectiveness of digital teaching materials based on a scientific approach, so that they can improve students' spatial abilities in cube material. This type of research is development research with the ADDIE development model. Research instruments in the research include questionnaire validation sheets, lesson plan validation sheets, digital teaching material validation sheets, test instrument validation sheets, spatial ability tests, as well as teacher and student response questionnaires to digital teaching materials. The research results show that: (1) the scientific approach-based digital teaching materials developed have met the validity criteria based on validator assessments with the average validity of digital teaching materials for material being 3.44 and 3.82 for media in the very appropriate category; (2) the scientific approach-based digital teaching materials developed have met the practicality criteria through: a) the results of the student response questionnaire to digital teaching materials show a practicality percentage of 82.75% in the very practical category, b) the results of the teacher response questionnaire to digital teaching materials show practicality percentage 91.67% in the very practical category; (3) The scientific approach-based digital teaching materials developed meet the effective criteria with: a) classical student learning completeness of 90%, b) more than 65% of students have achieved 75% of the learning objectives for each indicator, c) increasing students' spatial abilities After using digital teaching materials, it can be seen from the students' average score increasing from 47.67 in the pretest to 86.50 in the posttest. The results of the N-Gain analysis which shows that students' spatial abilities have increased by 0.725, meaning they are in the high category.

Keywords: Digital teaching materials, scientific approach, spatial ability, cube.