

**PENGEMBANGAN TES FORMATIF KEMAMPUAN BERPIKIR KRITIS
MATEMATIKA PADA MATERI BANGUN RUANG SISI DATAR BERBASIS *ADOBE
FLASH PROFESSIONAL CS6***

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ABSTRAK

Penelitian pengembangan ini bertujuan untuk menghasilkan instrumen tes kemampuan berpikir kritis melalui media *Adobe Flash Professional CS6* berupa soal uraian pada materi bangun ruang sisi datar yang valid dan reliabel serta mengukur kemampuan berpikir kritis siswa. Metode yang digunakan yaitu metode *Research and Development (R&D)* yang diadaptasi dari model pengembangan Tesser. Prosedur pengembangan instrumen yang dilakukan terdiri atas empat tahap yaitu *preliminary*, *self evaluation*, tahap *prototyping (expert reviews, one-to-one, dan small group)* serta *field test*. Subjek dari penelitian ini yaitu siswa kelas VIII E dan VIII F SMP Negeri 1 Abiansemal yang dimana jumlah subjek sebanyak 70 siswa. Hasil penelitian memenuhi kategori valid dengan menggunakan lembar validasi yang dikoreksi oleh 5 pakar ahli, dengan pemberian tes yang dilakukan satu kali diperoleh reliabilitas soal sebesar 0.70438 yang menyatakan bahwa reliabilitas butir soal tinggi, daya beda butir soal menunjukkan sebanyak 4 butir soal yang indeks daya bedanya ≥ 0.40 sehingga dikatakan sangat baik dan 6 butir soal memiliki indeks daya $0.30 \leq d < 0.40$ dikatakan cukup baik. Pada taraf kesukaran butir tes terdapat 8 butir soal terkategori sedang dan 2 butir soal terkategori sukar. Dengan demikian instrumen ini dapat digunakan untuk mengukur kemampuan berpikir kritis matematika siswa.

Kata Kunci: kemampuan berpikir kritis, bangun ruang sisi datar, pengembangan tes

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ABSTRACT

This development research aims to produce a critical thinking ability test instrument through Adobe Flash Professional CS6 media in the form of descriptive questions on valid and reliable flat-spaced building materials as well as measuring students' critical thinking skills. The method used is the Research and Development (R&D) method which was adapted from the Tessmer development model. The instrument development procedure consists of four stages, namely preliminary, self-evaluation, prototyping stage (expert reviews, one-to-one, and small group) and field tests. The subjects of this study were students of class VIII E and VIII F of SMP Negeri 1 Abiansemal where the number of subjects was 70 students. The results of the study met the valid category by using a validation sheet which was corrected by 5 expert experts, by giving a test that was carried out once, the reliability of the questions was 0.70438 which stated that the reliability of the items was high, the differentiating power of the items showed as many as 4 items with the index of difference power 0.40 so that it is said to be very good and 6 items that have a power index of $0.30 \leq d < 0.40$ are said to be quite good. At the level of difficulty of the test items, there are 8 items categorized as moderate and 2 items categorized as difficult. Thus, this instrument can be used to measure students' critical thinking skills in mathematics.

Keywords: critical thinking ability, building flat side space, test development