PENGEMBANGAN ASESMEN KOMPETENSI MINIMUM LITERASINUMERIK BENTUK URAIAN DENGAN MENERAPKAN *GENERALIZED PARTIAL CREDIT MODEL* (GPCM) UNTUK SISWA SD

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ABSTRAK

Penelitian ini bertujuan mengembangkan dan menguji kualitas instrumen Asesmen Kompetensi Minimum (AKM) literasi numerik bentuk uraian untuk siswa kelas V sekolah dasar dengan menerapkan*Generalized Partial Credit Model* (GPCM). Instrumen dikembangkan melalui model *formative research*dari Tessmer (1993) yang mencakup tahap *preliminary*, *self-evaluation*, dan *formative evaluation*, serta mencakup indikator bilangan, pengukuran dan geometri, aljabar, dan interpretasi data. Instrumen terdiri dari tiga paket soal, masing-masing 10 butir uraian dengan penskoran politomus (skor 0–3) berdasarkan tiga level kognitif AKM: *knowing*, *applying*, dan *reasoning*.Uji coba dilakukan pada 100 siswa kelas V dari tiga sekolah dasar di Kabupaten Buleleng, yaitu SD Negeri 1 Astina, SD Negeri 1 Paket Agung, dan SD Negeri 1 Banjar Bali. Hasil penelitian menunjukkan: (1) seluruh butir soal valid secara isi dengan nilai CVR dan CVI sebesar 1,00 (kategori sangat valid); (2) konsistensi internal butir baik dengan korelasi *product moment*> 0,1966; (3) reliabilitas sangat tinggi dengan koefisien *Alpha Cronbach* sebesar 0,871, 0,888, dan 0,875 untuk masing-masing paket; (4) daya beda butir berkisar antara 0,247–0,76 dalam kategori cukup baik hingga sangat baik; (5) taraf kesukaran bervariasi pada kategori sedang hingga sukar; (6) analisis ICC-GPCM menunjukkan peningkatan peluang skor tinggi seiring meningkatnya kemampuan siswa ($\theta = -4$ hingga $\theta = 4$). Estimasi kemampuan siswa menggunakan MLE menunjukkan mayoritas berada pada kategori sedang (57%–63%), rendah (21%–25%), dan tinggi (16%–19%); (7)Uji validitas konkuren menggunakan analisis jalur berbantuan SmartPLS menunjukkan bahwa ketiga paket instrumen memiliki hubungan positif dan signifikan terhadap hasil belajar matematika siswa. Paket 1 memperoleh koefisien jalur sebesar 0,356 dengan p-value 0,000 dan nilai R^2 sebesar 0,127. Paket 2 memperoleh koefisien jalur sebesar 0,252 dengan p-value 0,007 dan nilai R^2 sebesar 0,063. Paket 3 memperoleh koefisien jalur sebesar 0,252 dengan p-value 0,008 dan nilaiR^2 sebesar 0,064. Hasil tersebut menunjukkan bahwa instrumen yang dikembangkan memiliki validitas konkuren yang baik serta mampu mengukur kemampuan literasi numerik siswa secara akurat.

Kata kunci: Asesmen Kompetensi Minimum, *Generalized Partial Credit Model*, Instrumen Uraian, *Item Response Theory*, literasi numerik, Sekolah Dasar

DEVELOPMENT OF A CONSTRUCTED RESPONSE NUMERACY LITERACY MINIMUM COMPETENCY ASSESSMENT (AKM) USING THE GENERALIZED PARTIAL CREDIT MODEL (GPCM) FOR ELEMENTARY SCHOOL STUDENTS

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ABSTRACT

This study aimed to develop and examine the quality of a constructed-response Minimum Competency Assessment (AKM) instrument for numeracy literacy among fifth-grade elementary school students using the Generalized Partial Credit Model (GPCM). The instrument was developed through Tessmer's (1993) formative research model, comprising the preliminary, self-evaluation, and formative evaluation stages, and covered indicators of numbers, measurement and geometry, algebra, and data interpretation. The instrument consisted of three test packages, each containing 10 constructed-response items scored polytomously (0–3) based on the three AKM cognitive levels: knowing, applying, and reasoning. The trial was conducted with 100 fifth-grade students from three elementary schools in Buleleng Regency, namely SD Negeri 1 Astina, SD Negeri 1 Paket Agung, and SD Negeri 1 Banjar Bali. The results showed: (1) all items were content-valid, with CVR and CVI values of 1.00 (very valid category); (2) the items demonstrated good internal consistency, with product-moment correlations > 0.1966; (3) reliability was very high, with Cronbach's Alpha coefficients of 0.871, 0.888, and 0.875 for each package respectively; (4) item discrimination indices ranged from 0.247–0.76, categorized as fair to excellent; (5) item difficulty levels varied from moderate to difficult; (6) the ICC-GPCM analysis showed an increasing probability of higher scores as student ability increased ($\theta = -4$ to $\theta = 4$). Estimation of student ability using MLE indicated that the majority fell into the moderate category (57%–63%), followed by low (21%–25%) and high (16%–19%) categories; (7) a concurrent validity test using path analysis with SmartPLS showed that all three instrument packages had a positive and significant relationship with students' mathematics learning outcomes. Package 1 obtained a path coefficient of 0.356 with a p-value of 0.000 and an R^2 value of 0.127. Package 2 obtained a path coefficient of 0.252 with a p-value of 0.007 and an R^2 value of 0.063. Package 3 obtained a path coefficient of 0.252 with a p-value of 0.008 and an R^2 value of 0.064. These results indicate that the developed instrument possesses good concurrent validity and is capable of accurately measuring students' numeracy literacy ability.

Keywords: Minimum Competency Assessment, Generalized Partial Credit Model, constructed-response instrument, Item Response Theory, numeracy literacy, elementary school.