

ABSTRAK

T. Yulia Rahmayani, NIM. 4173311103 (2022). Pengembangan Soal Matematika Model PISA Menggunakan Konteks Sumatera Utara

Jenis Penelitian ini adalah Pengembangan. Penelitian ini bertujuan untuk mengembangkan soal matematika model PISA menggunakan konteks Sumatera Utara level 4, 5, 6 konten *Change and Relationship* yang valid, praktis dan memiliki efek potensial. Metode penelitian ini adalah *Research and Development (R&D)* dengan menggunakan model pengembangan 4-D (*four-D Model*) yang terdiri dari 4 tahap yakni *define, design, develop, dan disseminate*. Subjek penelitian ini ialah 26 siswa-siswi berumur 15 tahun kelas IX SMP IT IQRA Medan. Teknik pengumpulan data yang dilakukan adalah tes, wawancara dan pemberian lembar validasi. Analisis dilakukan secara bertahap dengan urutan analisis validitas, reliabilitas, daya pembeda, tingkat kesukaran, kepraktisan dan efek potensial dari uji coba instrument. Hasil penelitian ini ialah 6 butir soal matematika model PISA dengan konteks Sumatera Utara yang valid, praktis dan memiliki efek potensial. Valid dari segi konten, kontruks, dan bahasa berdasarkan penilaian validator, *one-to-one* dan uji validitas pada tahap *small group*. Praktis berdasarkan uji coba *small group* dan memiliki efek potensial berdasarkan analisis hasil jawaban siswa pada *field test*.

Kata kunci: *Research and Development*, PISA, Konteks Sumatera Utara



ABSTRACT

T. Yulia Rahmayani, NIM. 4173311103 (2022). Development of PISA Model Mathematical Problems Using the Context of North Sumatra

This type of research is development. This study aims to develop PISA model math problems using the context of North Sumatra level 4, 5, 6 Change and Relationship content that is valid, practical and has potential effects. This research method is Research and Development (R&D) using a 4-D development model (four-D Model) which consists of 4 stages, namely *define, design, develop, and disseminate*. The subjects of this study were 26, 15 year old students in class IX SMP IT IQRA Medan. The data collection techniques used were tests, interviews and giving validation sheets. The analysis was carried out in stages with the order of analysis of validity, reliability, discriminatory power, level of difficulty, practicality and potential effects of instrument trials. The results of this study are 6 PISA model math questions with the context of North Sumatra that are valid, practical and have potential effects. Valid in terms of content, construct, and language based on validator's assessment, one-to-one and validity test at the small group stage. Practically based on small group trials and has a potential effect based on the analysis of student answers on the field test.

Kata kunci: *Research and Development*, PISA, Context of North Sumatera