ABSTRAK

TAUFIQOH. 2023. **Pengembangan Soal Matematika Berbasis AKM dengan Konteks *Adiwiyata* untuk Melatih Kemampuan Numerasi Siswa.** Program Studi Magister Pendidikan Matematika. Program Pascasarjana. Universitas Siliwangi.

Penelitian ini bertujuan untuk menghasilkan soal matematika berbasis AKM konteks *Adiwiyata* yang valid, praktis dan memiliki efek potensial untuk melatih kemampuan numerasi siswa. Subjek dalam penelitian ini adalah 35 siswa MAN 2 Tasikmalaya yang terdiri dari 16 siswa kelas X dan 19 siswa kelas XI, 2 guru matematika, 1 Tim *Adiwiyata*, 2 ahli tentang penyusunan soal AKM, 1 ahli bidang *Adiwiyata*. Metode yang digunakan dalam penelitian ini adalah *design research* dengan tipe *development studi* yang terdiri dari tahap *preliminary* yang meliputi tahap analisis, spesifkasi tujuan dan desain. tahap yang kedua yaitu *formative evaluation* yang meliputi tahap *self-evaluation*, *expert review* dan *ono-to-one, small group* dan *field test* untuk mendapatkan soal yang valid, praktis dan memiliki efek potensial. Teknik pengumpulan data pada penelitian ini adalah wawancara, *walktrough,* angket dan tes. Instrument yang digunakan adalah lembar validasi ahli soal AKM numerasi, lembar validasi ahli kurikulum *Adiwiyata*, angket respon kepraktisan soal, angket respon efek potensial soal. Berdasarkan hasil penelitian, pengembangan dan pembahasan, pada tahap *preliminary* analisis kurikulum, analisis siswa, analisis *framework* AKM numerasi, spesifkasi tujuan dan desain kisi-kisi soal, kartu soal, lembar validasi ahli soal AKM, lembar validasi ahli kurikulum Adiwiyat, angket kepraktisan dan angket efek potensial. Pada tahap *expert review* dan *ono-to-one*, peneliti menghasilkan soal matematika yang valid. Kepraktisan soal diperoleh pada tahap *small group* dengan kategori capaian "baik". Efek potensial soal diperoleh pada tahap *field test* melalui hasil angket respon soal matematika berbasis AKM konteks *Adiwiyata* yang mencapai kategori "baik". Hasil pengujian soal matematika berbasis AKM konteks *Adiwiyata* diperoleh 28,11% dari 286 (26 siswa x 11 soal) yang bisa menyelesaikan soal yang berhubungan dengan indikator kemampuan menggunakan angka dan simbol yang terkait matematika dasar untuk memecahkan masalah dalam berbagai macam konteks kehidupan sehari-hari. Sebanyak 21,97% dari 208 (26 siswa x 8 soal) mampu memunculkan indikator kemampuan menganalisis informasi yang ditampilkan dalam berbagai bentuk (grafik, tabel, bagan, diagram, dan sebagainya). Sebanyak 19,23% dari 286 (26 siswa x 11 soal) sudah mampu memunculkan indikator kemampuan menafsirkan hasil analisis untuk memprediksi dan mengambil keputusan.

Kata kunci: AKM, Kemampuan numerasi, *Adiwiyata*

ABSTRACT

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This study aims to produce math questions based on AKM in the *Adiwiyata* context that are valid, practical and have a potential effect on training students' numeracy skills. The subjects in this study were 35 students of MAN 2 Tasikmalaya consisting of 16 students in class X and 19 students in class XI, 2 math teachers, 1 *Adiwiyata* team, 2 experts on the preparation of AKM questions, 1 expert in the field of *Adiwiyata*. The method used in this study is design research with the type of development study which consists of a preliminary stage which includes the analysis, objective specification and design stages. The second stage is formative evaluation which includes self-evaluation, expert review and one-to-one, small group and field tests to obtain questions that are valid, practical and have potential effects. Data collection techniques in this study were interviews, walkthroughs, questionnaires and tests. The instruments used were expert validation sheets on AKM numeration questions, expert validation sheets on the *Adiwiyata* curriculum, practicality response questionnaires, and potential effect response questionnaires. Based on the results of research, development and discussion, at the preliminary stage of curriculum analysis, student analysis, analysis of the AKM numeration framework, specification of objectives and design of the question grid, question cards, expert validation sheets of AKM questions, validation sheets of Adiwiyat curriculum experts, practicality questionnaires and potential effect questionnaires. At the expert review and ono-to-one stages, the researcher produced valid math questions. The practicality of the questions was obtained at the small group stage with the "good" achievement category. The potential effect of the questions was obtained at the field test stage through the results of the AKM-based mathematics question questionnaire in the *Adiwiyata* context which reached the "good" category. The results of the AKM-based mathematics test in the *Adiwiyata* context obtained 28.11% of 286 (26 students x 11 questions) students who could solve questions related to indicators of the ability to use numbers and symbols related to basic mathematics to solve problems in various kinds of contexts of everyday life. As many as 21.97% of 208 (26 students x 8 questions) students were able to bring up indicators of the ability to analyze information displayed in various forms (graphs, tables, charts, diagrams, and so on). As many as 19.23% of the 286 (26 students x 11 questions) students were able to bring up indicators of the ability to interpret analysis results to predict and make decisions.