ABSTRAK

Chika Fransisca, 2023. Pengembangan Lembar Kerja Peserta Didik Berbasis Etnomatematika Gamelan Bali Gong Kebyar Pada Materi Relasi Di Sekolah Menengah Pertama. Skripsi. Program Studi Pendidikan Matematika, Jurusan Pendidikan Matematika dan Ilmu Pengetahuan Alam, Fakultas Keguruan dan Ilmu Pendidikan. Universitas Sanata Dharma.

Penelitian ini bertujuan untuk (1) mengetahui aktivitas-aktivitas fundamental matematis pada alat musik Gamelan Bali Gong Kebyar, (2) menyajikan deskripsi proses pengembangan Lembar Kerja Peserta Didik (LKPD) berbasis etnomatematika Gamelan Bali Gong Kebyar, dan (3) mengetahui hasil kualitas kelayakan Lembar Kerja Peserta Didik (LKPD) berbasis etnomatematika Gamelan Bali Gong Kebyar.

Jenis penelitian ini adalah penelitian pengembangan dengan Model Plomp yang dilakukan hingga pada tahapan *test, evaluation, and revision*. Metode pengumpulan data, yaitu wawancara, observasi, angket, tes, studi dokumen, dan dokumentasi. Teknik analisis data yang digunakan adalah analisis kualitatif dan analisis kuantitatif. Subjek penelitian ini adalah seorang dosen etnomusikologi di Institut Seni Indonesia (ISI) Yogyakarta dan peserta didik kelas VII J di SMP K 1 Harapan Denpasar tahun ajaran 2022/2023. Objek penelitian ini adalah alat musik Gamelan Gong Kebyar dan perangkat pembelajaran LKPD berbasis etnomatematika Gamelan Gong Kebyar.

Hasil penelitian ini adalah sebagai berikut. (1) penelitian ini belum menemukan aktivitas fundamental matematis pada gending tari pendet dalam permainan Gamelan Gong Kebyar. Penelitian ini telah menemukan aktivitas fundamental matematis untuk aspek sejarah, filosofi, dan perkembangan Gamelan Gong Kebyar; penamaan dan bentuk fisik Gamelan Gong Kebyar; dan permainan Gamelan Gong Kebyar. (2) Penelitian ini telah menemukan proses pengembangan LKPD berbasis etnomatematika dengan Model Plomp. Pada tahap investigasi awal diperoleh hasil berupa analisis kebutuhan peserta didik dan pembelajaran; latar belakang peserta didik; hasil kajian kebudayaan; dan aktivitas fundamental matematis yang termuat di dalam kajian kebudayaan. Pada tahap desain diperoleh hasil berupa identifikasi kajian kebudayaan untuk pembelajaran matematika SMP, kisi-kisi LKPD, kerangka awal penyusunan LKPD, serta instrumen penelitian berupa instrumen wawancara; observasi; lembar validasi; dan lembar angket. Pada tahap realisasi/konstruksi diperoleh hasil berupa LKPD final serta rubrik penilaian LKPD. Pada tahap tes, evaluasi dan revisi diperoleh hasil berupa penilaian LKPD dan revisi komponen-komponen LKPD. (3) Pada uji kualitas kelayakan LKPD diperoleh hasil bahwa LKPD yang dikembangkan memenuhi kualitas kelayakan berdasarkan kriteria valid dengan nilai 77% dari validasi LKPD, kriteria praktis dengan nilai 80% dari angket respon terhadap penggunaan dan kriteria efektif sebesar 79% dari persentase ketuntasan peserta didik pada uji coba LKPD.

Kata kunci: etnomatematika, gamelan gong kebyar, lembar kerja peserta didik (LKPD), Model Plomp

ABSTRACT

Chika Fransisca, 2023. Development of Student Worksheets based on the Ethnomathematics of the Balinese Gamelan Gong Kebyar on Relation Material In Junior High School. Thesis. Mathematics Education Study Program, Department od Mathematics and Natural Sciences Education, Faculty of Teacher Training and Education. Sanata Dharma University.

This aims of the research is to (1) find out the fundamental mathematical activities on the Gamelan Bali Gong Kebyar musical instrument, (2) present a description of the development process of the Learner Worksheet (LKPD) based on ethnomathematics of Gamelan Bali Gong Kebyar, and (3) find out the results of the feasibility quality of the Learner Worksheet (LKPD) based on ethnomathematics of Gamelan Bali Gong Kebyar.

This research was a development-research with the Plomp Model which was carried out up to the stages of test, evaluation, and revision. The data collection methods were interviews, observations, questionnaires, tests, document studies, and documentation. The data analysis techniques used were qualitative and quantitative analysis. The subjects of this research were an ethnomusicology lecturer at the Indonesian Institute of Arts (ISI) Yogyakarta and students of class VII J at SMP K 1 Harapan Denpasar in the 2022/2023 academic year. The object of this research was the Gamelan Gong Kebyar musical instrument and ethnomathematics-based LKPD learning tool Gamelan Gong Kebyar.

The following are the results of the research. (1) This research has not found mathematical fundamental activities in Pendet dance music in Gamelan Gong Kebyar games. This research has found fundamental mathematical activities for aspects of the history, philosophy, and development; naming and physical form; and the game of Gamelan Gong Kebyar. (2) This research has found the process of developing ethnomathematics-based LKPD with the Plomp Model. At the initial investigation stage, the results were obtained in the form of analyzing the needs of students and learning; the background of students; the results of cultural studies; and fundamental mathematical activities contained in cultural studies. At the design stage, the results were obtained in the form of identification of cultural studies for junior high school mathematics learning, LKPD grids, initial framework for LKPD preparation, and research instruments in the form of interview instruments; observations; validation sheets; and questionnaire sheets. At the realization/construction stage, the results were obtained in the form of the final LKPD and the LKPD assessment rubric. At the test, evaluation and revision stage, the results are obtained in the form of LKPD assessment and revision of LKPD components. (3) In the feasibility quality test of LKPD, the results show that the developed LKPD meets the feasibility quality based on valid criteria with a value of 77% of LKPD validation, practical criteria with a value of 80% of the questionnaire response to use and effective criteria of 79% of the percentage of students' completeness in the c test.

***Keywords**: ethnomathematics, gamelan gong kebyar, student worksheets, Plomp Model*