

ABSTRAK

Maria Satya Larasati. 191414063. Eksplorasi Etnomatematika pada Kain Tenun Suku Baduy di Banten dan Implementasinya dalam Pembelajaran Matematika 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 sejarah dan filosofi dari kain tenun suku Baduy; (2) mengetahui proses dalam pembuatan kain tenun suku Baduy; (3) mendeskripsikan aktivitas fundamental matematis Bishop yang terdapat pada kain tenun suku Baduy; (4) mengetahui materi matematika yang relevan dengan aspek aktivitas fundamental matematis Bishop pada kain tenun suku Baduy; dan (5) mengetahui rancangan Lembar Kerja Peserta Didik (LKPD) matematika yang berbasis etnomatematika pada kain tenun Baduy. Lembar Kerja Peserta Didik (LKPD) berbasis etnomatematika pada kain tenun Baduy untuk pembelajaran matematika SMP. Metode yang digunakan adalah observasi, wawancara, dan dokumentasi. Teknis analisis data yang digunakan terdiri dari reduksi data, penyajian data, dan penarikan kesimpulan dan verifikasi.

Hasil dari penelitian ini adalah sebagai berikut. 1) Sejarah pada kain tenun Baduy belum banyak diketahui secara pasti. Tradisi menenun merupakan tradisi turun menurun yang diajarkan oleh perempuan Baduy. Terdapat warna yang menjadi ciri khas kain tenun Baduy, yaitu warna hitam sebagai lambang kesederhanaan dan warna putih sebagai lambang kesucian; 2) Proses pembuatan kain tenun dimulai dari mempersiapkan alat dan bahan, mengincir benang dan menyusunnya, tahap *mihane*, tahap *ngaliar*, memasukkan benang ke sisir. Selanjutnya, penenun dapat memulai menenun dengan cara mengangkat *jinjingan* ke depan dan belakang, lalu melemparkan benang dengan *toropong* dan merapikan benang dengan sisir dan *barera*. Setelah itu, memindahkan *barera*, lalu mengulanginya hingga membentuk motif yang diinginkan. Tahap terakhir, mengikat keping ujung benang; 3) Aktivitas fundamental matematis Bishop yang terdapat pada kain tenun Baduy, yaitu a) aktivitas *counting*: banyaknya bahan yang digunakan dan banyak motif kain tenun. b) aktivitas *locating*: lokasi memperoleh bahan. c) aktivitas *measuring*: ukuran kain tenun, lama produksi kain tenun, dan harga jual kain tenun. d) aktivitas *designing*: motif kain tenun. e) aktivitas *playing*: proses pembuatan kain tenun dan aturan dan kendala pembuatan kain tenun. f) aktivitas *explaining*: motif dan makna kain tenun, perbedaan kain tenun yang dulu dan sekarang, karakteristik yang membedakan kain tenun Baduy dengan kain tenun lainnya, dan menentukan harga jual; 4) Materi matematika SMP yang relevan dengan aktivitas fundamental matematis, yaitu perbandingan, persamaan linear satu variabel, segiempat, transformasi geometri, relasi dan fungsi, dan aritmetika sosial; dan (5) Lembar Kerja Peserta Didik (LKPD) untuk Sekolah Menengah Pertama berbasis etnomatematika pada kain tenun Baduy dengan materi perbandingan dan segiempat.

Kata kunci: kain tenun Baduy, etnomatematika, aktivitas fundamental matematis, Lembar Kerja Peserta Didik.

ABSTRACT

Maria Satya Larasati. 191414063. Exploration of Ethnomathematics in the Woven Cloth of the Baduy Tribe in Banten and its Implementation in Mathematics Learning in Junior High School. Undergraduate Thesis. Mathematics Education Study Program, The Department of Mathematics and Science Education, Faculty of Teacher Training and Education. Sanata Dharma University.

This research aimed to (1) understand the history and philosophy of the woven cloth of the Baduy tribe; (2) understand the process of making the woven cloth of the Baduy tribe; (3) describe the Bishop's fundamental mathematical activities found in the woven cloth of the Baduy tribe; (4) identify relevant mathematical topics related to the Bishop's fundamental mathematical activities in the woven cloth of the Baduy tribe; and (5) develop ethnomathematics-based Student Worksheets (LKPD) on Baduy woven cloth.

The research conducted in this study are qualitative in nature, using an ethnographic approach. The subjects used were two Baduy woven cloth artisans and a Baduy creative youth group member. The objects used were the history and philosophy of the Baduy tribe's woven cloth, the process of making woven cloth, fundamental mathematical activities, relevant mathematics topics, and Student Worksheets (LKPD) for Junior High School based on ethnomathematics on Baduy woven cloth for mathematics learning in Junior High School. The research methods employed were observation, interviews, and documentation. The data analysis techniques used were data reduction, data display, and conclusion drawing and verification.

The results of this research were as follows. 1) The history of Baduy woven cloth has yet to be widely known. Weaving tradition is an inherited tradition taught by Baduy women. There are distinctive colors in Baduy woven cloth, namely black as a symbol of simplicity and white as a symbol of purity; 2) The process of making woven cloth starts with preparing tools and materials, spinning and arranging the threads, the mihane stage, the ngaliar stage, inserting the thread into the comb. Then, the weaver can start weaving by lifting the jinjingan forward and backward, then throwing the thread with toropong and smoothing the thread with a comb and barera. After that, move the barera and repeat the process to form the desired motif. The final stage is tying the ends of the threads into braids; 3) The Bishop's fundamental mathematical activities found in Baduy woven cloth are a) counting activities: the number of materials used and the number of woven cloth motifs. b) locating activities: locating the source of materials. c) measuring activities: measuring the size of the woven cloth, the production time of the woven cloth, and the selling price. d) designing activities: designing the woven cloth motif. e) playing activities: the process of making woven cloth and the rules and constraints of making woven cloth. f) explaining activities: explaining the motifs and meanings of the woven cloth, the differences between past and present woven cloth, characteristics that distinguish Baduy woven cloth from other woven cloth, and determining the selling price; 4) The relevant mathematics topics in junior high school related to the fundamental mathematical activities are ratios, linear equations with one variable, quadrilaterals, geometric transformations, relations and functions, and social arithmetic. and (5) Student Worksheets (LKPD) for Junior High School based on ethnomathematics on Baduy woven cloth, focusing on ratios

and quadrilaterals.

Keywords: *Baduy woven cloth, ethnomathematics, fundamental mathematical activities, student worksheet*



