ABSTRAK

Tessania Agata, 221414050. 2026. Kajian Etnomatematika Pada Bakcang dan Pembuatan Modul Ajar Untuk Materi Limas Segitiga Beraturan Bagi Siswa SMP. Skripsi. Program Studi Pendidikan Matematika. Universitas Sanata Dharma.

Pembelajaran matematika sering kali masih bersifat abstrak, kurangnya kemampuan visualisasi dan belum dikaitkan dengan konteks kehidupan sehari-hari membuat siswa kesulitan memahami konsep. Tujuan dari penelitian ini adalah untuk mendeskripsikan sejarah, makna, dan perkembangan Bakcang dalam budaya Tionghoa dan akulturasi dengan budaya lokal di Indonesia, mendeskripsikan proses pembuatan Bakcang secara tradisional dan modern di Indonesia, untuk mengidentifikasi aktivitas fundamental matematis dan untuk mendeskripsikan langkah-langkah merancang modul ajar materi Limas Segitiga Beraturan dengan menggunakan pendekatan PMR dengan konteks Bakcang bagi siswa SMP.

Jenis penelitian ini adalah penelitian kualitatif dan penelitian desain. Penelitian kualitatif digunakan untuk menggali budaya Bakcang dan penelitian desain digunakan untuk merancang modul ajar dengan konteks Bakcang. Pada penelitian kualitatif data dikumpulkan melalui wawancara dengan dua produsen Bakcang di Yogyakarta dan Surakarta menggunakan pedoman wawancara yang telah divalidasi ahli. Validasi data dilakukan dengan triangulasi sumber, dan analisis data kualitatif meliputi reduksi data, penyajian data, dan penarikan kesimpulan. Pada penelitian desain tahapan hanya dilakukan di tahap 1 yaitu desain pendahuluan, dengan merancang urutan aktivitas pembelajaran menggunakan konteks bakcang.

Hasil penelitian menunjukkan bahwa Bakcang adalah makanan tradisional Tionghoa yang menjadi simbol dalam perayaan Peh Cun setiap tanggal 5 bulan 5 kalender Tionghoa. Bakcang mengalami akulturasi budaya melalui penyesuaian bahan, rasa dan variasi isian. Pembuatannya berkembang dari tradisi persembahan menggunakan nasi/beras ketan dengan isian sederhana menjadi proses modern dengan beras ketan berbumbu yang diisi berbagai varian dan dibungkus daun bambu. Terdapat aktivitas fundamental matematis, yaitu: (1) *locating* meliputi proses melipat daun bambu, mengisi bahan dan proses perebusan, (2) *measuring* meliputi menimbang bahan, penggunaan jumlah daun bambu, waktu perebusan dan penentuan kapasitas air, (3) *designing* meliputi perancangan bentuk Bakcang, proses pembungkusan dan perancangan harga jual, (4) *playing* meliputi penerapan aturan dan tahapan pembuatan yang sistematis dan (5) *explaining* meliputi penjelasan mengenai sistem pemesanan, penentuan waktu open PO, serta pengaturan jumlah produksi.

Berdasarkan hasil tersebut, disusun modul ajar dengan pendekatan PMR berbasis konteks Bakcang melalui tahapan analisis konteks etnomatematika, perumusan tujuan pembelajaran, penyusunan kegiatan pembelajaran, serta pengembangan perangkat pendukung.

Kata kunci: Etnomatematika, Aktivitas Fundamental Matematis, Bakcang, modul ajar, PMR, limas segitiga beraturan.

ABSTRACT

Tessania Agata, 221414050. 2026. *An Ethnomathematics Study of Bakcang and the Development of a Teaching Module on Regular Tetrahedron for Junior High School Students. Undergraduate Thesis. Mathematics Education Program. Sanata Dharma University.*

Mathematics instruction is often still abstract; a lack of visualization skills and the failure to connect the subject to everyday life contexts make it difficult for students to understand the concepts. The objectives of this study are to describe the history, meaning, and development of Bakcang within Chinese culture and its acculturation with local culture in Indonesia; to describe the traditional and modern processes of making Bakcang in Indonesia; to identify fundamental mathematical activities; and to describe the steps for designing a teaching module on Regular Tetrahedron using the PMR approach within the Bakcang context for junior high school.

This study is a qualitative and design research. Qualitative research was used to explore Bakcang culture, and design research was used to design a teaching module with a Bakcang context. In the qualitative research, data were collected through interviews with two Bakcang producers in Yogyakarta and Surakarta using an interview guide validated by experts. Data validation was conducted through source triangulation, and qualitative data analysis included data reduction, data presentation, and drawing conclusions. In this design study, the design process was carried out only in Phase 1, namely the preliminary design phase, by designing a sequence of learning activities using the bakcang context.

Research findings indicate that Bakcang is a traditional Chinese food that serves as a symbol in the Peh Cun celebration held on the 5th day of the 5th month of the Chinese calendar. Bakcang has undergone cultural acculturation through adjustments to its ingredients, flavors, and filling variations. Its preparation has evolved from a traditional offering using glutinous rice with simple fillings into a modern process involving seasoned glutinous rice filled with various ingredients and wrapped in bamboo leaves. There are fundamental mathematical activities, namely: (1) locating, which involves the process of folding bamboo leaves, filling the ingredients, and boiling; (2) measuring, which involves weighing ingredients, determining the number of bamboo leaves, boiling time, and water volume; (3) designing, which involves designing the shape of the Bakcang, the wrapping process, and setting the selling price; (4) playing, which involves the application of rules and systematic production steps, and (5) explaining, which involves explaining the ordering system, determining the PO opening time, and managing production quantities.

Based on these results, a teaching module was developed using a PMR approach based on the Bakcang context through the stages of ethnomathematics context analysis, formulation of learning objectives, design of learning activities, and development of supporting materials.

***Keywords**: Ethnomathematics, Fundamental Mathematical Activities, Bakcang, teaching module, RME, regular triangular pyramid*