

KAJIAN ETNOSAINS KERAJINAN *TEDUNG ROBROB* DI DESA KEKERAN SEBAGAI PENDUKUNG MATERI PEMBELAJARAN IPA SMP

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ABSTRAK

Pembelajaran IPA masih belum banyak mengaitkan materi dengan konteks kehidupan sehari-hari sehingga cenderung bersifat abstrak dan kurang kontekstual. Di samping itu, kearifan lokal memiliki potensi sebagai sumber belajar yang relevan. Berdasarkan permasalahan tersebut, penelitian ini menjadi solusi dengan mengkaji kearifan lokal, yaitu Fokus kajian dalam penelitian ini diarahkan pada kerajinan *Tedung Robrob* di Desa Kekeran. Secara spesifik, penelitian ini dirancang untuk (1) memaparkan tahapan produksi dari kerajinan *Tedung Robrob* tersebut, (2) membedah unsur-unsur sains ilmiah yang melandasi proses pembuatannya, serta (3) mengorelasikan hasil rekonstruksi ilmiah tersebut dengan materi pembelajaran IPA di tingkat SMP. Untuk mencapai tujuan tersebut, penelitian ini menerapkan metode deskriptif kualitatif melalui pendekatan etnosains. Penelitian ini dilaksanakan di kawasan Desa Kekeran, Kecamatan Busungbiu, Kabupaten Buleleng, Bali. Adapun subjek yang dilibatkan guna memperoleh data riset meliputi pengusaha dan perajin tradisional *Tedung Robrob*, serta guru IPA SMP di daerah setempat. Data dikumpulkan melalui metode observasi, wawancara, angket, dan dokumentasi. Data dikumpulkan melalui observasi, wawancara, angket, dan dokumentasi, kemudian dianalisis menggunakan model Miles dan Huberman, sedangkan keabsahan data diuji melalui triangulasi sumber, triangulasi teknik, dan member check. Hasil penelitian menunjukkan bahwa proses pembuatan *Tedung Robrob* meliputi tahap persiapan, pembuatan komponen, hingga finishing. Proses tersebut memuat konsep sains seperti klasifikasi makhluk hidup, pesawat sederhana, gaya, tekanan, energi dan perubahannya, perubahan wujud zat, difusi, kalor dan perpindahannya, serta pencemaran lingkungan. Konsep-konsep tersebut juga memiliki keterkaitan dengan capaian pembelajaran dan tujuan pembelajaran IPA SMP. Dengan demikian, kerajinan *Tedung Robrob* berpotensi menjadi sumber belajar kontekstual berbasis etnosains yang mendukung pembelajaran IPA SMP serta meningkatkan pemahaman konsep, motivasi belajar, dan keterampilan berpikir kritis siswa.

Kata kunci: etnosains, kearifan lokal, kontekstual, pembelajaran IPA, *Tedung Robrob*.

ETHNOSCIENCE STUDY OF *TEDUNG ROBROB* CRAFTS IN KEKERAN VILLAGE AS SUPPORTING MATERIAL FOR JUNIOR HIGH SCHOOL SCIENCE LEARNING

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ABSTRACT

Science learning has not yet widely integrated subject matter with students' daily life contexts, making it relatively abstract and less contextual. Meanwhile, local wisdom has considerable potential to serve as a relevant learning resource. In response to this issue, the present study focuses on the local wisdom embodied in the *Tedung Robrob* handicraft of Kekeran Village. Specifically, this study aims to (1) describe the production process of the *Tedung Robrob* handicraft, (2) identify the scientific concepts underlying its production process, and (3) correlate the reconstructed scientific concepts with junior high school science learning materials. This study employed a descriptive qualitative method using an ethnoscience approach. The research was conducted in Kekeran Village, Busungbiu District, Buleleng Regency, Bali. The research participants consisted of *Tedung Robrob* entrepreneurs, traditional craftsmen, and junior high school science teachers. Data were collected through observation, interviews, questionnaires, and documentation. The collected data were analyzed using the Miles and Huberman model, while data validity was established through source triangulation, technique triangulation, and member checking. The findings revealed that the *Tedung Robrob* production process consists of preparation, component manufacturing, and finishing stages. These processes encompass various scientific concepts, including the classification of living organisms, simple machines, force, pressure, energy and its transformations, changes in the states of matter, diffusion, heat and heat transfer, and environmental pollution. These concepts are also aligned with the learning outcomes and learning objectives of junior high school science. Therefore, the *Tedung Robrob* handicraft has the potential to serve as an ethnoscience-based contextual learning resource that supports junior high school science learning while enhancing students' conceptual understanding, learning motivation, and critical thinking skills.

Keywords: contextual learning, ethnoscience, local wisdom, science education, *Tedung Robrob*.