

KAJIAN ETNOSAINS PROSES PEMBUATAN BABI GULING KHAS BALI SEBAGAI PENDUKUNG MATERI PEMBELAJARAN IPA DI SMP

Oleh

Ni Kadek Puspa Rahayu, NIM 2213071005

Jurusan Fisika dan Pengajaran IPA

ABSTRAK

Penelitian ini dilatarbelakangi oleh rendahnya literasi sains peserta didik serta pelaksanaan pembelajaran IPA yang masih bersifat tekstual dan belum mengintegrasikan konsep-konsep ilmiah dengan konteks kehidupan nyata maupun kearifan lokal masyarakat. Salah satu kearifan lokal yang berpotensi dimanfaatkan sebagai sumber belajar IPA adalah proses pembuatan babi guling khas Bali di Desa Bengkel, Kecamatan Kediri, Kabupaten Tabanan. Penelitian ini bertujuan untuk mendeskripsikan proses pembuatan babi guling khas Bali, mengidentifikasi kajian etnosains yang terkandung di dalamnya, serta menganalisis keterkaitannya dengan materi pembelajaran IPA SMP. Penelitian ini menggunakan pendekatan etnosains dengan jenis penelitian kualitatif deskriptif. Subjek penelitian ditentukan melalui teknik *purposive sampling* dan *snowball sampling* yang melibatkan produsen babi guling serta guru IPA SMP. Teknik pengumpulan data dilakukan melalui observasi, wawancara, dokumentasi, dan angket. Data dianalisis secara kualitatif melalui tahapan reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa proses pembuatan babi guling mencakup pemilihan bahan, penyembelihan dan pembersihan babi, pembuatan bumbu *base genep*, pencampuran bumbu dengan daun singkong, penusukan besi penggulingan dan penjahitan perut babi, proses penggulingan secara manual, penyemprotan coca-cola dan pengolesan minyak pada kulit babi, serta penyajian. Kajian etnosains yang ditemukan meliputi konsep campuran dan zat tunggal, perubahan fisika dan kimia, kalor dan perpindahannya, sistem gerak manusia, tekanan zat, pesawat sederhana, serta klasifikasi makhluk hidup dan bagian tumbuhan. Hasil kajian tersebut berpotensi diintegrasikan ke dalam materi pembelajaran IPA SMP sesuai dengan Capaian Pembelajaran pada Kurikulum Merdeka.

Kata kunci: etnosains, babi guling khas Bali, kearifan lokal, literasi sains.

***ETHNOSCIENTIFIC STUDY OF THE PROCESS OF MAKING A TYPICAL
BALI ROASTED PIG AS SUPPORTING SCIENCE LEARNING
MATERIALS IN JUNIOR HIGH SCHOOLS***

By

Ni Kadek Puspa Rahayu, NIM 2213071005

Jurusan Fisika dan Pengajaran IPA

ABSTRACT

This study was motivated by the low level of students' scientific literacy and the implementation of science learning, which remains predominantly text-based and has not yet integrated scientific concepts with real-life contexts and local wisdom. One form of local wisdom that has the potential to be utilized as a learning resource in science education is the process of making traditional Balinese roasted pig (babi guling) in Bengkel Village, Kediri District, Tabanan Regency. This study aimed to describe the process of making traditional Balinese roasted pig, identify the ethnoscientific aspects embedded within the process, and analyze their relevance to junior high school science learning materials. This study employed an ethnoscience approach using a qualitative research design. The research subjects were selected through purposive sampling and snowball sampling techniques involving roasted pig producers and junior high school science teachers. Data were collected through observation, interviews, documentation, and questionnaires. The data were analyzed qualitatively through the stages of data reduction, data presentation, and conclusion drawing. The results showed that the process of making traditional Balinese roasted pig includes material selection, slaughtering and cleaning the pig, preparation of base genep seasoning, mixing the seasoning with cassava leaves, inserting the roasting iron rod and sewing the pig's abdomen, manual roasting through continuous rotation, spraying Coca-Cola and applying oil to the pig's skin, and serving the roasted pig. The ethnoscientific concepts identified include mixtures and pure substances, physical and chemical changes, heat and heat transfer, the human movement system, pressure, simple machines, and the classification of living organisms and plant parts. These findings have the potential to be integrated into junior high school science learning materials in accordance with the Learning Outcomes of the Merdeka Curriculum.

Keywords: *ethnoscience, Balinese roasted pork, local wisdom, scientific literacy.*