

## ABSTRAK

Adinda Ayu Anggelya. 2025. *Pengembangan Bahan Ajar Biologi SMA Berbasis Etnosains Pada Proses Pengolahan Kopi Di Jember*. Skripsi, Program Studi Pendidikan Biologi Fakultas Keguruan Dan Ilmu Pendidikan, Universitas Muhammadiyah Jember. Pembimbing: (1) Dr.Kukuh Munandar, M.Kes. (2) Dr.Agus Prasetyo Utomo, S.Si., M.Pd.

**Kata Kunci:** Bahan Ajar Biologi, Etnosains, Pengolahan Kopi Jember, Pembelajaran Berbasis Kearifan Lokal.

Salah satu langkah untuk meningkatkan kualitas hidup adalah melalui pendidikan yang memadai. Untuk mencapai hal ini, penting untuk meningkatkan fasilitas pendidikan, termasuk penggunaan media pembelajaran yang sesuai. Minimnya partisipasi siswa dalam memecahkan masalah, rendahnya minat mengerjakan tugas, dan kesulitan memahami materi menjadi kendala dalam pembelajaran. Pembelajaran berbasis etnosains juga masih jarang diterapkan, meskipun dapat menghubungkan siswa dengan lingkungan alam, sosial, dan budaya. Oleh karena itu, diperlukan e-modul inovatif tentang keanekaragaman hayati kopi dan proses pengolahannya untuk meningkatkan pemahaman dan keterampilan siswa.

Penelitian ini termasuk dalam kategori penelitian pengembangan yang dilakukan pada bulan September hingga Oktober 2024 di SMA Negeri 2 Jember. Penelitian bertujuan mengembangkan bahan ajar biologi berbasis etnosains, memanfaatkan pengolahan kopi di Jember sebagai konteks pembelajaran. Metode yang digunakan adalah Research and Development (R&D) dengan model pengembangan ADDIE (*Analysis, Design, Development, Implementation, Evaluation*). Subjek penelitian adalah siswa kelas X di SMA Negeri 2 Jember.

Pengembangan bahan ajar dimulai dengan analisis kebutuhan, melibatkan guru dan siswa. Hasil penelitian menunjukkan bahwa bahan ajar biologi berbasis etnosains ini dinyatakan sangat valid dengan nilai persentase rata-rata 89,66% dan dapat meningkatkan pemahaman biologi siswa juga menghargai kearifan lokal. Uji coba lapangan menunjukkan kepraktisan belajar siswa dengan nilai persentase rata-rata antara 86,71% hingga 87,19% serta respon positif dari guru dan siswa.

## ABSTRACT

Adinda Ayu Anggelya. 2025. Development of Biology-Based High School Teaching Materials Ethnoscience on the Coffee Processing Process in Jember. Thesis, Biology Education Study Program, Faculty of Teacher Training and Education, Muhammadiyah University of Jember. Supervisor: (1) Dr. Kukuh Munandar, M. Kes. (2) Dr. Agus Prasetyo Utomo, S.Si., M.Pd.  
**Keywords:** Biology Teaching Materials, Ethnoscience, Jember Coffee Processing, Local Wisdom Based Learning

One step to improve the quality of life is through adequate education. To achieve this, it is important to improve educational facilities, including the use of appropriate learning media. The lack of student participation in solving problems, low interest in doing assignments, and difficulty understanding the material become obstacles in learning. Ethnoscience-based learning is also rarely implemented, even though it can connect students with the natural, social and cultural environment. Therefore, an innovative e-module about coffee biodiversity and its processing process is needed to improve students' understanding and skills. This research is included in the development research category which was carried out from September to October 2024 at SMA Negeri 2 Jember. The research aims to develop ethnoscience-based biology teaching materials, utilizing coffee processing in Jember as a learning context. The method used is Research and Development (R&D) with the ADDIE (Analysis, Design, Development, Implementation, Evaluation) development model. The research subjects were class X students at SMA Negeri 2 Jember.

The development of teaching materials begins with a needs analysis, involving teachers and students. The research results show that this ethnoscience-based biology teaching material is declared very valid with an average percentage score of 89.66% and can improve students' understanding of biology and respect local wisdom. Field trials showed the practicality of student learning with an average percentage score between 86.71% to 87.19% as well as positive responses from teachers and students.