

## ABSTRAK

ARRIZAL YUSUF FAHRUDDIN 2026. **Pengaruh Model *Engage, Explore Explain, Elaborate and Evaluate (5E)* Berbasis Etnobotani Terhadap Literasi Spesies Lokal dan *Scientific Explanation* pada Materi Keanekaragaman Hayati (Studi Eksperimen Kelas X SMA Negeri 4 Tasikmalaya Tahun Ajaran 2025/2026)**. Jurusan Pendidikan Biologi Fakultas Keguruan Dan Ilmu Pendidikan, Universitas Siliwangi, Tasikmalaya

Keanekaragaman hayati merupakan materi esensial dalam pembelajaran Biologi yang menuntut literasi spesies lokal dan kemampuan *scientific explanation* peserta didik. Namun, pembelajaran yang masih bersifat konseptual menyebabkan kedua kemampuan tersebut relatif rendah. Penelitian ini bertujuan menganalisis pengaruh model pembelajaran 5E berbasis etnobotani terhadap literasi spesies lokal dan kemampuan *scientific explanation* peserta didik kelas X SMA Negeri 4 Tasikmalaya. Penelitian menggunakan metode kuasi eksperimen dengan desain *Nonequivalent Control Group Design*. Kelas eksperimen menerapkan model 5E berbasis etnobotani, sedangkan kelas kontrol menggunakan *Discovery Learning*. Data dianalisis menggunakan uji ANCOVA dengan *pretest* sebagai kovariat. Hasil penelitian menunjukkan bahwa model 5E berbasis etnobotani berpengaruh signifikan terhadap literasi spesies lokal (Sig. = 0,001) dan kemampuan *scientific explanation*. Peningkatan hasil belajar kelas eksperimen lebih tinggi dibandingkan kelas kontrol, sehingga model 5E berbasis etnobotani terbukti efektif pada materi keanekaragaman hayati.

**Kata kunci:** Keanekaragaman hayati; literasi spesies lokal; *scientific explanation*; model pembelajaran 5E; etnobotani.

### **ABSTRACT**

**ARRIZAL YUSUF FAHRUDDIN 2026 *The Effect of the Ethnobotany-Based Engage, Explore, Explain, Elaborate, and Evaluate (5E) Learning Model on Local Species Literacy and Scientific Explanation in Biodiversity Learning (An Experimental Study of Grade X Students at SMA Negeri 4 Tasikmalaya in the 2025/2026 Academic Year).***  
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*Biodiversity is an essential topic in biology education that requires students to develop local species literacy and scientific explanation skills. However, learning that remains predominantly conceptual has resulted in relatively low levels of these abilities. This study aimed to analyze the effect of an ethnobotany-based 5E learning model on the local species literacy and scientific explanation skills of Grade X students at SMA Negeri 4 Tasikmalaya. The study employed a quasi-experimental method with a nonequivalent control group design. The experimental class implemented the ethnobotany-based 5E learning model, while the control class used Discovery Learning. Data were analyzed using ANCOVA with pretest scores as covariates. The results showed that the ethnobotany-based 5E learning model had a significant effect on local species literacy (Sig. = 0.001) and scientific explanation skills. The improvement in learning outcomes in the experimental class was higher than that in the control class, indicating that the ethnobotany-based 5E learning model is effective for teaching biodiversity.*

***Keywords: Biodiversity; local species literacy; scientific explanation; 5E learning model; ethnobotany.***