

ABSTRACT

Erina Debora Mastauli Lubis, IDN. 4213151006 (2025), Development of Ethno-STEM Based Modules Integrated with Creative Thinking on Elements, Compounds and Mixtures Material.

The limited relevance of science learning and the dominance of conventional teaching methods have led to low creative thinking skills among students. This study aims to develop an Ethno-STEM-based module integrated with creative thinking skills on the topic of elements, compounds, and mixtures. The development model used is the 4D model (Define, Design, Develop, and Disseminate), limited to expert validation and student responses. The module integrates local wisdom and cultural contexts with STEM learning stages, fostering fluency, flexibility, originality, and elaboration. The validation results show that the module meets the "very valid" criteria from material experts (Aiken's $V = 0.85$), learning experts (0.84), media experts (0.81), and test instrument validators (0.83). Science teachers also rated the module very valid (0.89). Student responses reached an average of 89%, categorized as "very practical," indicating that the module is attractive, easy to understand, culturally relevant, and effective in stimulating creative thinking. Thus, the developed Ethno-STEM module is highly feasible, practical, and relevant as an alternative teaching material in supporting the Independent Curriculum and enhancing students' creative thinking.

Keywords: Ethno-STEM, Creative Thinking Skills, Science Module, Elements Compounds and Mixtures

