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The Impact of Hands-On STEM Activities on Students' International Posture

Sunday 18 May 2025 11:05 (1 minute)

TITLE

The Impact of Hands-On STEM Activities on Students' International Posture

RELEVANT SIG

College and University Educators (CUE)

FORMAT

In-person interactive poster session

Short English description

KEYWORDS

STEM
International Posture
Self-guided Learning

First-time presenter?

ABSTRACT

This study investigates whether learning environmental topics in English enhances students' global awareness and helps them visualize their roles in a globalized world. During a three-week period, students conducted hands-on experiments and collected data independently, fostering autonomy, critical thinking, and self-directed learning. Surveys administered before and after the unit addressed four questions: (1) What are students' tendencies regarding international posture and environmental awareness? (2) How do they envision their future roles globally? (3) Does studying environmental topics in English influence their attitudes toward issues like water resources? (4) How does this learning experience impact environmental awareness? Preliminary results suggest that integrating environmental education into STEM English classes improves language

skills and deepens engagement with global challenges. Autonomy in experiments increased motivation and highlighted the importance of collaboration and sustainability. These findings will inform curriculum design to enhance students' linguistic abilities alongside 21st-century skills like effective communication and problem-solving. By promoting an understanding of global issues and encouraging proactive learning, this approach equips students to navigate and contribute meaningfully to an interconnected world.

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