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Enhancing Climate Change and Environmental Literacy: A Structured Learning Approach

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ABSTRACT

Recent years have seen an increase in devastating natural disasters, prompting discussions on how to build resilient communities. The growing frequency and cost of these events necessitate improved public planning and preparation. This reflects a broader understanding that enhancing resilience requires considering multiple environmental factors and their interactions within community contexts. This paper presents a research project aimed at increasing community resilience awareness through a multilayered interconnectivity empowerment program. The project utilized a hierarchical approach to content dissemination through various delivery methods. A diverse group of female students from different majors at Mississippi State University participated in a pilot study during the 2023-24 academic year. The study employed a mixed-methods approach for data collection and statistical analysis. Participants engaged in educational modules covering climate change, environmental education, and community resilience, establishing a foundation for further research activities. A pre-post survey demonstrated an increase in participants' environmental science knowledge. Students also selected relevant topics to present to public audiences, with quantitative measures indicating the effectiveness of this informal training in climate change and environmental education. Participants expressed interest in exploring community resilience topics more broadly in the Gulf region. While the proposed model connects various community resilience stakeholders in Mississippi, it has potential for replication in different scopes, geographical areas, and emphases. This study contributes to the field by presenting results from a youth empowerment program designed to cultivate the next generation of community resilience leaders. The model's success suggests its potential for broader application and impact in fostering community resilience.

Keywords: Climate Change, Environmental Literacy, Community Resilience, Multilayered Training