

Session Description: ED011 - Climate literacy: Youth Engagement, Education, Action and Empowerment Towards the Phenomenon of Global Climate Change

This session invites abstracts describing research and programs in formal, informal and non-formal settings that engage learners from 0-18 years in climate literacy, education and action. We welcome studies that prepare youth to address, respond to and manage the impacts of a changing climate through curricular and instructional interventions, implementation and assessment of resources aligned with NGSS. We also encourage studies that present examples of professional development for in-service teachers and learning of pre-service teachers focused on climate change and education. Studies focused on evaluation programs, program designs and best practices for developing competency in climate literacy, decision-making and resiliency are also welcome.

Creating Local Pathways for Resilience to the Impacts of Global Climate Change with the Hazard Education and Resilience Task (HEART) Force in Rural Colorado

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Rural communities in Colorado face different challenges than urban areas when responding to the impacts of climate change. While these communities may not have access to the financial resources and planning infrastructure that large cities do, close community ties and an entrepreneurial can-do attitude give these communities an advantage to create opportunities for meaningful classroom community engagement. HEART Force is a unique program for secondary students in rural Colorado formal learning settings that educates and empowers students to respond to climate change impacts in the face of increasing likelihood and severity of environmental hazards such as wildfire, flood and drought. The program supports youth partnership with community leaders and experts to build resilience through a three-pronged approach using a curriculum designed to support NGSS. Students begin the unit by learning about the science of environmental hazards and how these hazards will be affected by climate change through analysis of local data. Next, students learn how to manage and respond to hazards in their community in a scenario-based role-play game. The unit culminates in a community resilience expo, giving students the opportunity to address impacts from environmental hazards by developing, presenting, and implementing strategies to increase community resilience. We will share the program design, lessons learned from teacher professional development and support, and preliminary research findings on the program impacts on students and teachers.