

Lens on Climate Change (LOCC) – Engaging Diverse Secondary Students in Climate Science through Videography

Anne Gold, Lesley Smith, Erin Leckey, David Oonk, and Melanie Woods

Cooperative Institute for Research in Environmental Sciences (CIRES), Education and Outreach Group, University of Colorado, Boulder, United States (anne.u.gold@colorado.edu)

The impact of climate change is often discussed using examples from Polar Regions, such as decreasing polar bear populations, but significant changes are happening to local climates around the world. Climate change is often perceived as happening elsewhere, evoking a sense that others have to take action to mitigate climate change.

Learning about climate change is very tangible for students when it addresses impacts they can observe close to their home. The Lens on Climate Change (LOCC) program engages students, ages 11to18 in producing short videos about climate change topics in Colorado, USA, specifically ones that are impacting students' lives and their local community. Participating schools are located in rural, suburban and urban Colorado many of which have diverse student populations often from socioeconomically disadvantaged backgrounds. Project staff recruits university graduate and undergraduate students to mentor the students in their research and video production. With the help of these mentors, student groups select and research climate topics, interview science experts and stakeholders, and produce short videos.

The program aims to engage students in self-motivated research and learning about a climate topic. Furthermore, it serves as a way to spark students' interest in a career in science by matching them with college students for the program duration and bringing them to a university campus for a final screening event. For many of the students it is their first visit to a college campus.

The LOCC project aims to connect secondary students, who otherwise would not have this opportunity, with college life and the scientific community. Evaluation results show that the process of video production is a powerful tool for the students to explore and learn about climate change topics. Students and teachers appreciate the unique approach to learning. The here presented approach of teaching science with videography in an active, self-directed style can easily be transferred.