

# Making a Case for Hands-Off, Student-Lead Research in Alternative Settings

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November 26, 2022

## Abstract

This summer, The GLOBE Program brought 56 students from 13 different countries to Howell Nature Center near Detroit, Michigan for a camp-like experience. The majority of the students in attendance had been chosen to attend and received funding for receiving top scores from local US and international virtual science symposia and presented their research at a poster session prior to attending the nature center experience. Between campfire s'mores and nature walks, the students were asked to collect data and create research projects. Having little more instruction than "use the equipment provided and stay within sight," the students self-selected mixed age (10-19), gender, and nationality groups; formulated their own research questions to examine the local environment (a small lake, the surrounding trees, and contaminated tap water); and created high quality presentations using the data they collected over two days. The diversity of the questions that the students researched reflected the diversity of the groups themselves and explored topics surrounding water health, land use, and human health. The success of this experience lends itself to make a great case study for allowing students the creative freedom and control to create their research projects, especially in non-classroom settings such as summer camps and outdoor education centers. By combining data collection with recreational activities, in this case kayaks and canoes, removing the structure of a traditional classroom setting, and giving the students complete control over their projects, the students had fun and engaged in their research in a more memorable way.



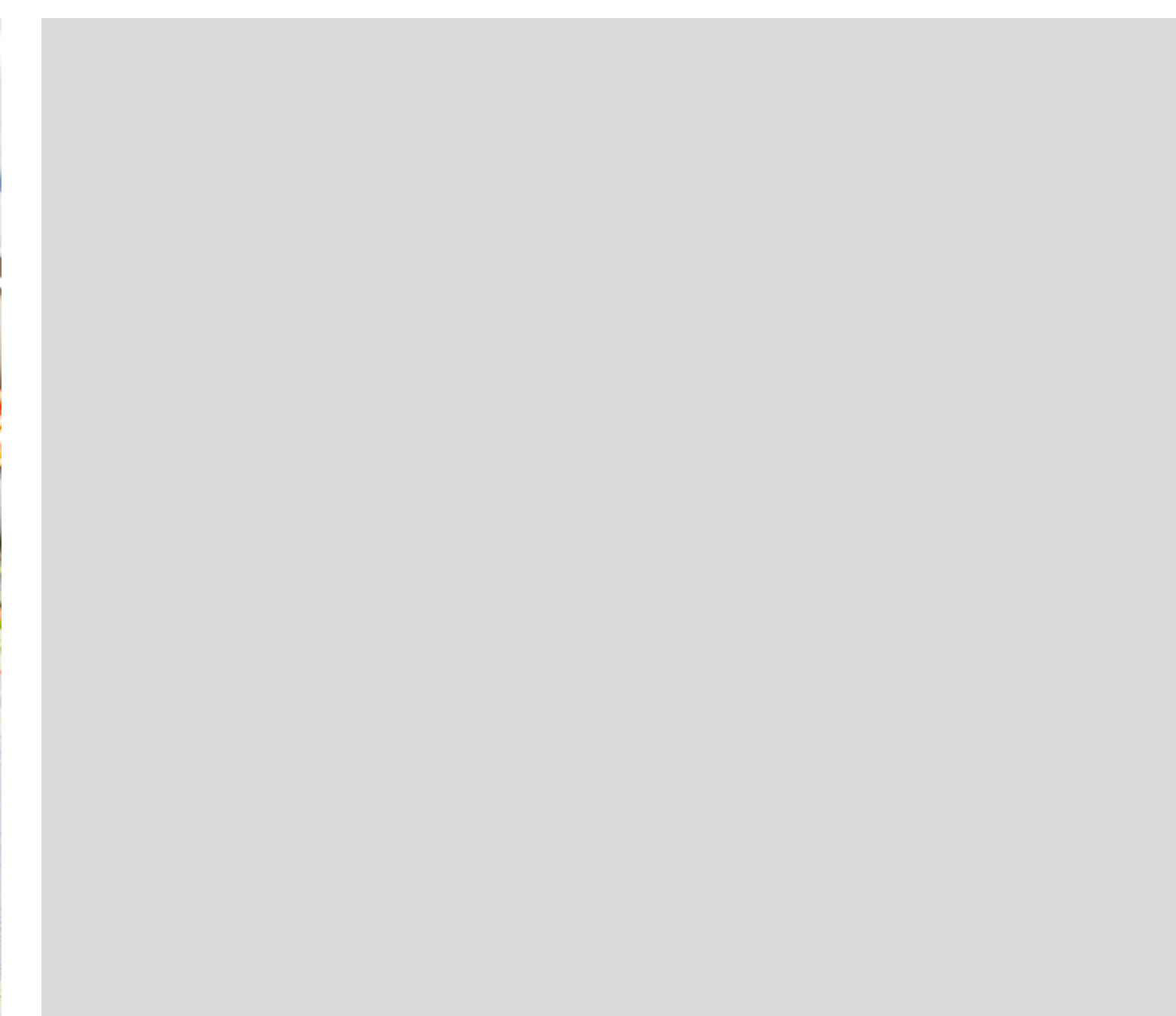


# Making a Case for Hands-Off, Student-Led Research in Alternative Settings

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By combining data collection with recreational activities, removing the structure of a traditional classroom setting, and giving the students complete control over their projects, *the students had fun and engaged in their research in a more memorable way.*

The GLOBE Program

Global Learning and Observations to Benefit the Environment (GLOBE) is an international science and education program that provides students and the public worldwide with the opportunity to participate in data collection and the scientific process, and contribute meaningfully to our understanding of the Earth system and global environment.

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## SETTING

In July 2019, The GLOBE Program brought 56 students from 13 different countries to Howell Nature Center near Detroit, Michigan for a *camp-like experience*.

## PREPARATION

The students there had received top scores from local US and international virtual science symposia. They presented on their previous research at a poster session prior to attending the nature center experience.

## RESEARCH

Having little more instruction than “*use the equipment provided and stay within sight,*” the students **self-selected** mixed age (10-19), gender, and nationality groups; **formulated their own research questions** to examine the *local environment*, and created high quality presentations using the **data** they collected over two days.

## DIVERSITY

The **diversity** of the questions that the students researched reflected the diversity of the groups themselves and explored topics surrounding **water quality, land use, and human health**.

## CREATIVITY

The success of this experience lends itself to make a great case study for allowing students the **creative freedom and control to create their research projects**, especially in *non-classroom settings* such as summer camps and outdoor education centers.