

## Project Participants

**17** States  
**25** Teachers  
**2,062** Students



## Study Goals

Investigate an innovative approach to teaching climate change in high school science classrooms that:

- Connects global climate science with local phenomena to boost student engagement
- Customizes curriculum to community context for deeper understanding and connection
- Builds students' capacity to understand and act on climate issues through local relevance

## Key Features

### Comprehensive Base Curriculum

75% standardized climate science content focusing on fundamental concepts, real data analysis, and global impacts

### Professional Learning

60-hour program combining collaborative sessions with practical design work, and experienced teachers providing guidance on implementing localized units

### Local Customization

25% teacher-customized content connecting climate science to locally-relevant phenomena and solutions

### Research Design

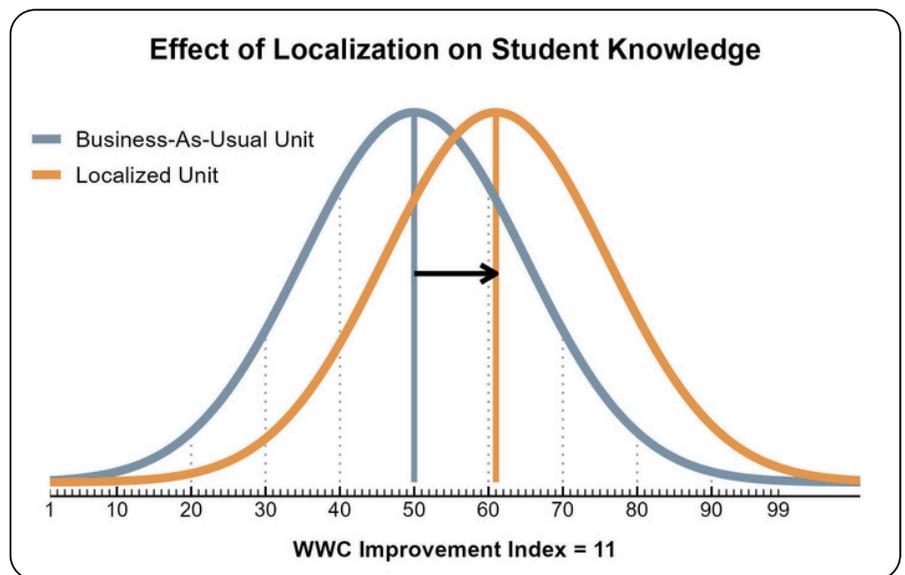
Quasi-experimental study with teachers implementing both traditional and localized approaches

## Student Outcomes

The What Works Clearinghouse (WWC) Improvement Index indicates that students who participated in the Climate Education Pathways program would be expected to outperform students who did not receive the intervention by an average of:

**11%** in their climate science knowledge ( $g = 0.278$ )

**5%** in their foundation for climate action and solution engagement ( $g = 0.126$ )



## Teacher Outcomes

Teachers demonstrated significant growth across multiple dimensions.

### Substantial Growth

Confidence in:

- Teaching Climate Change ( $d = 1.563$ )
- Relevance and Localization ( $d = 2.067$ )

### Moderate Growth

- Understanding of Climate Science ( $d = 0.505$ )
- Confidence in NGSS Design and Facilitation ( $d = 0.779$ )

I now feel much more comfortable with designing and engaging students with this technique. Students were genuinely interested and researching on their own, having relevant conversations that were spontaneous and lively.

Climate Education Pathways participant