

**New Challenges & Next Steps**

*Challenge: Recruiting large number of partner teachers/schools (30 per cohort)*

* *Share information about TRAILS via social media or townhall meetings.*
* *Recruiting through professional organizations to locate participants: ex. State extension programs, Student Orgs, 4H, Robotics, etc.*

*Challenge: Limited access to teachers for summer PD*

* *Next Steps: Afterschool training sessions during school year teachers.*

**Equity**

*To reach* *underserved and underrepresented rural populations, the TRAILS 2.0 team will work with up to 90 secondary STEM teachers to impact over 10,000 students and expand to schools in: Delmarva Peninsula (Delaware, Maryland, and Virginia area), Southeastern Colorado and Northern New Mexico, and native Hawaiian-serving schools.*

**Lessons Learned & Insights Gained**

*Preliminary results indicate: 1) Teachers participating in the summer PD (2022) significantly increased their Community of Practice network size; 2) Students showed an increase in place attachment after participation in place-based integrated STEM.*

include Local Rural Knowledge and Place-Based Education to better reach underrepresented students living in rural setting.  These two theories provide strong approaches to meeting the needs of a learner living in small towns and rural location

TRAILS 2.0 uses local rural contexts to create place-based STEM learning through a community of practice, 3D printing, and biomimicry inspired engineering design that promote 21st century skills.

**Collaborative Research: SEI: Teachers and Researchers Advancing Integrated Lessons in STEM (TRAILS) 2.0**

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NSF Award Number​: 2148781(Purdue Univ.)/2148782 (Univ. of Hawaii) Dates: 2022-2026

Project type:​ Collaborative Research: SEI

Project URL: https://www.purdue.edu/trails

Project Overview: The TRAILS 2.0 SEI will expand, scale, and innovate a tested model of integrative STEM instruction and teacher professional development to enhance rural students’ STEM learning while generating interest in STEM careers.

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