Preparing Teachers to Design 5D Tasks to Support and Assess Science Learning
Jennifer Jacobs¹, William R. Penuel¹, Kerri Wingert¹, Abraham Lo², Chris Wilson², Cari Herrmann-Abell² & Will Lindsay¹
¹University of Colorado & ²BSCS Science Learning

PROJECT GOAL
Supporting secondary rural science teachers to shift to 5D instruction & assessment through an online, co-adapted course

5D Science Teaching & Learning involves
Science & Engineering Practices
Student Interest
Disciplinary Core Ideas
Student Identity
Crosscutting Concepts

INITIAL FINDINGS
Unique Aspects of Rural Science Teaching
1. Community, small classes, outdoor resources
2. Limited resources, changing population, conservative climate

Reported 5D Instruction
3. Broad efforts to align
4. Less attention to student interest & identity

Curricular & Assessment Resources
5. Autonomy in generating “aligned” resources
6. Less familiar with 3D assessment

PL Experiences & Preferences
7. Desire science-specific PL with knowledgeable facilitators, sensitive to local context

PROJECT PHASES
1) Teacher Survey, Focus Groups
2) Course Design & Pilot
3) Experimental Impact Study

FINDINGS

5D MASTERS
Making Aligned Science Tasks Equitable for Rural Students

COADAPTATION SPRING 2021

COURSE DESCRIPTION
Developing 5D Vision for Science Teaching and Learning
1: Vision for meaningful science learning
2: What does 5D science learning look like in classrooms?
3: Reflect on current practice
4: Guidance from the standards

Choosing phenomenon to frame instruction and assessment
5: Using phenomena
6: Choosing phenomena
7: Developing assessment scenarios

Developing & using tasks to assess student 5D understanding
8: Developing prompts
9: Assessing student learning
10: Accessibility
11: Application to practice

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