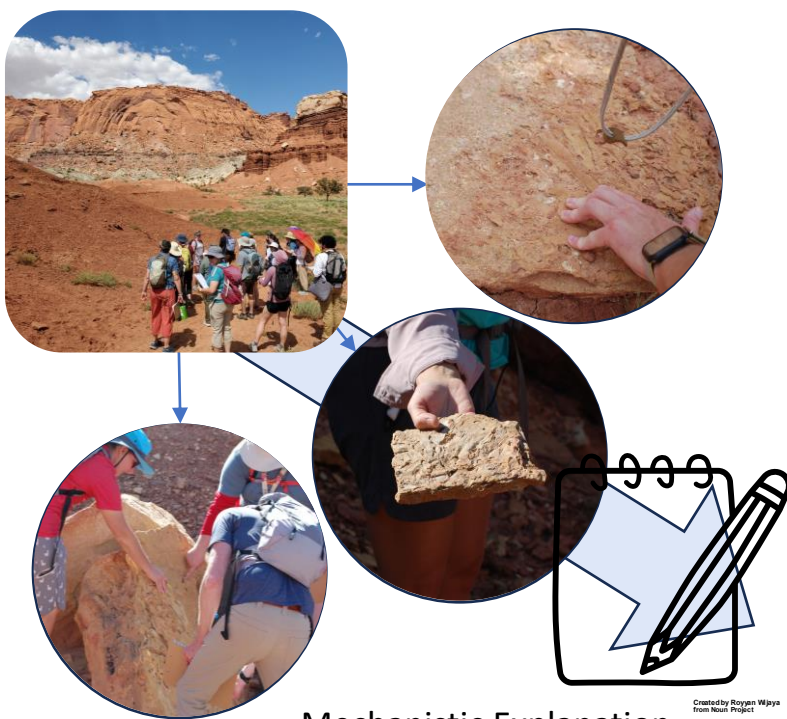


Scientific Observations, Interpretations, and Interactions with Peers Together Contributes to Mechanistic Explanations in Field Geology



#2201764: Collaborative Research: Learning to observe: Unpacking teachers development of expertise in scientific observation

Teachers Sensemaking about Geological Processes



Mechanistic Explanation

Generating a range of observations and interpretations contributed to mechanistic explanations.

Teachers Progress from Developing Expertise in Scientific Observation to Designing Learning Experiences



Created by Collection from Noun Project



Created by Viral faisaalovers from Noun Project

- Development in scientific observation happened over time as teachers interacted with new and familiar rocks and made interpretations with peers.
- Teachers modeled their own field trips on what they experienced as learners.

Methods

Knowledge in Pieces

Secondary Science Teachers

- Year-long geology professional learning environment that included a week-long field experience in Capitol Reef National Park, Utah
- Collected video, audio, and written data
- Thematic qualitative analysis

Challenge Overcome

Geology Field work

- Geology field trip logistics, included: Intense mosquitos, a flat tire, severe heat of southern Utah in June, and road construction
- Data loss due to equipment failure

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