



Website Resources

Project Website:

<https://serc.carleton.edu/mel/index.html>

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Evaluating Sources and Claims

Evaluating Sources and Claims

Teach the Earth Portal
Model-Evidence Link Diagrams Project
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Lateral Reading-Model-Evidence Link Diagrams (LR-MEL) Project

The purpose of our project is to promote students' civic and scientific evaluations of sources and alternative claims when confronted with controversial and/or complex socioscientific issues in the Earth and environmental sciences. We do this by integrating English Language Arts (ELA) and social studies classrooms—focused on *source evaluation*—with science classrooms—focused on *evaluating connections between lines of evidence and alternative explanatory claims*. We are developing, implementing, and testing complementary Lateral Reading (LR) and Model-Evidence Link (MEL) scaffolds that include instructional materials and methods in both social studies and science classrooms. Issues students explore range from climate change and extreme weather to freshwater availability and food security along with many others.

Climate Change: Increases in atmospheric carbon dioxide since the Industrial Revolution

Project Overview

The Lateral Reading-Model-Evidence Link Diagrams (LR-MEL) project is investigating how deeper evaluations might promote changes in students' epistemic judgments, including source trustworthiness, and claim plausibility, toward a more civically-minded and scientific stance. We are also developing and implementing three-day summer institutes and follow-on professional development to help middle and high school ELA, social studies, and science teacher teams use LR (in ELA and social studies) and MEL (in science) scaffolds to facilitate students' critical-analytic thinking, evidence-based reasoning, and core disciplinary knowledge.

Lateral Reading - Source Evaluation



Earth Science Information Partners

ESIP Teacher Workshop – July 24, 2025

- Seattle, WA & Online
- Use Earth science data and tools (e.g. soils, energy, NASA, NOAA, USGS)
- Certificate for 10 hrs PD
- <https://2025julyesipmeeting.sched.com/>

RASSI

RASSI - Reasoning About Socioscientific Issues Instrument

Sample RASSI item:

2a. It is becoming more likely that we will run out of freshwater for human use.

(1 = SD to 6 = SA)

2b. Why did you choose the number you did? Choose the reason from this list you think is best.

- Humans' access to freshwater is a crisis in some places because local sources are being depleted. We need to conserve water so we will have enough or future use.
- Humans' access to freshwater is a crisis in some places because local sources are being depleted. Desalination will help us convert saltwater to freshwater so we have enough for future use.
- Humans' access to freshwater is unlimited because it is renewed and moved around by the water cycle. Rainwater harvesting allows us to collect this water and use it as needed.
- Humans' access to freshwater is unlimited because it is renewed and moved around by the water cycle. This cycle will replenish water within a few decades so we have enough for future use.

2c. How confident are you that the reason you chose is the best reason?

(1 = Not at all confident to 6 = Very confident)

RASSI

We would like your feedback.

- Two hours in a Zoom session.
- \$100 gift card.
- If you are interested in participating in a cognitive interview, please contact

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