

What do we know about how to do educational programs well?

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Sponsors and partners



How have we been learning?

EE field trips (grades 5-8)

- 334 programs in 24 states (USA) and DC
- 4,376 participant surveys
- 70+ observed program characteristics

Stern, M.J., R.B. Powell, and B.T. Frensley 2021. Environmental education, age, race, and socioeconomic class: An exploration of differential impacts of field trips on adolescent youth in the United States. *Environmental Education Research*.

Stern & Powell 2020. Field trips and the experiential learning cycle. *Journal of Interpretation Research* 24(1).

O'Hare et al. 2020. Influence of educators' emotional support behaviors on environmental education student outcomes. *Environmental Education Research*.

Lee et al. 2020. Do pre-visit preparation and post-visit activities improve student outcomes on field trips? *Environmental Education Research*.

Dale et al. 2020. Influence of the natural setting on environmental education outcomes. *Environmental Education Research* 26(5): 613-631.

Powell, R.B., M.J. Stern, B.T. Frensley, and D. Moore 2019. Identifying and developing crosscutting environmental education outcomes for adolescents in the 21st century (EE21). *Environmental Education Research* 25(9): 1281-1299.

Online programs

- Systematic literature review
- 47 K-12 EE programs

Merritt, E., M. Stern, B. Powell, & T. Frensley 2020. Promising principles to enhance distance learning in environmental education. *Directions: Journal of the Association of Nature Center Administrators*. Fall 2020.



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The role of the educator

- Responsiveness
- Emotional support
- Confidence and clarity



Organization

- Clear preparation and orientation
- Logical progression
- Meaningful transitions
- Clear conclusion



Active engagement

- Physical
- Verbal
- Cognitive



Minimize fact-based lecturing

What about lecture-focused programs?

No, my friend . . .



Place-based engagement

Immersion in novel natural settings

About the place



Before and after scaffolding

- Pre-experience preparation
- Post-experience follow-up



Online systematic literature review

Fostering connections


- Relevance
- Social-ecological connections
- Peer interactions
- Role models

Supporting learner agency

- Autonomy
- Active engagement
- Challenge
- Positive framing
- Multiple modalities

Completing the learning cycle

- Preparation
- Experience
- Feedback / Responsiveness
- Reflection
- Application



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Examples of potential improvements

Conclusion

- Ensure time to conclude program and for student reflection (completes the learning cycle).

Engagement

- Focus on reducing lecture and adding opportunities for engagement (physical, verbal, and cognitive).

Transitions

- Provide clear transitions between program elements to keep students engaged.

Pre and Post Activities

- Develop pre and post activities to ensure that students complete the learning cycle.

What opportunities do you see?

