# RoP
## Reflecting on Practice

Informal STEM educators putting learning research to work

A professional learning program for educators in informal STEM learning environments to learn together and build community and understanding.

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reflectingonpractice.org
#ropSTEM

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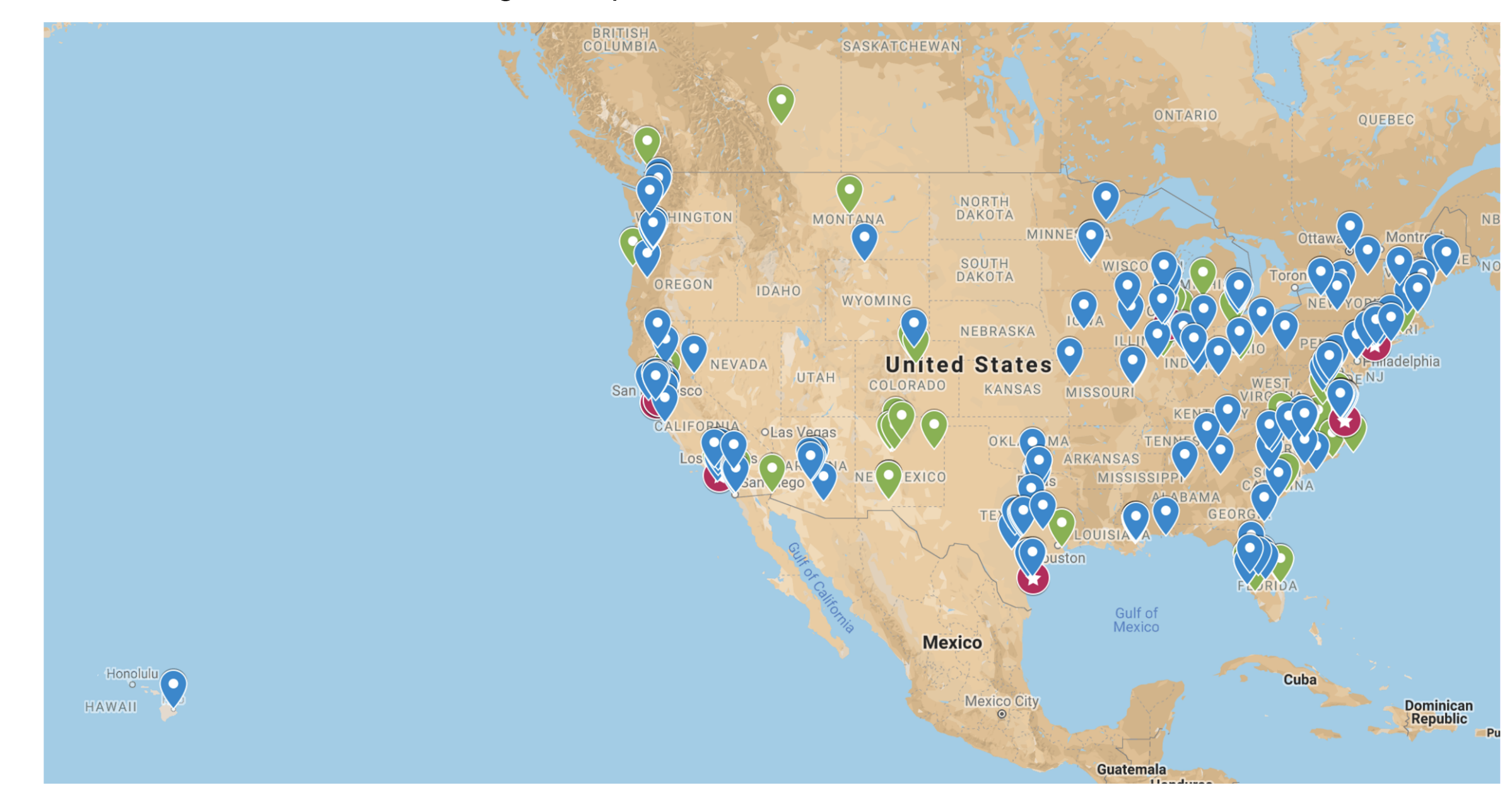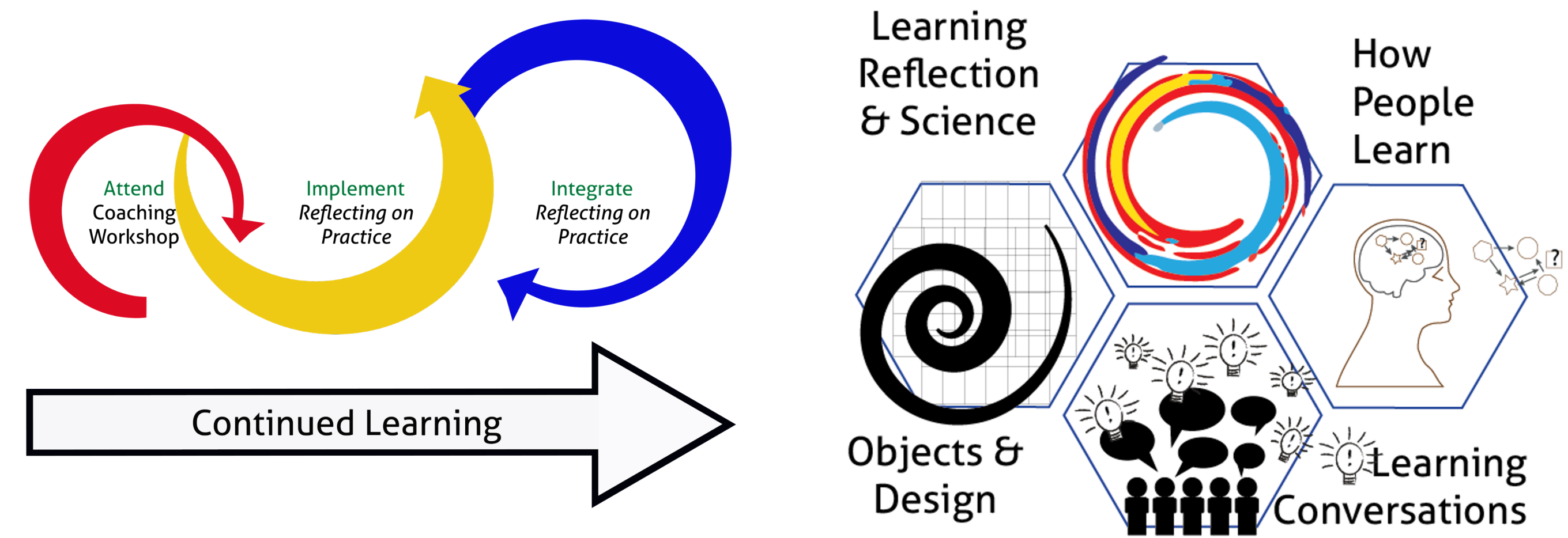
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## CONTEXT

Informal educators' collective work broaden the scope of an organization's reach: interactions with general visitors at the exhibits, classes and activities for schoolchildren on- and off-site, enrichments for youth and seniors, and workshops for classroom teachers (to name a few). It is through this collective work that the organization grows its social capital in its local community and beyond its physical footprint. This social capital garners tangible returns, such as continued visits, sponsorships, and donations, as well as intangible yield, such as reputation, respect, expertise, and leadership..



## PROBLEM

Given the significant contributions of educators to an institution's outcomes, why is investing in human capital treated as a burden?

Existing models for & mindsets to support educators' professional growth & development are inadequate.
- The implementation contradict level of excellence expected for visitor experience. Focus is on "training up" on what staff don't know, rather than encouraging ongoing learning & being critically reflective.
- The design don't reflect what's known about how people learn or how to transform practice. Focus is on "time away from work," rather than learning as a part of work

*[These existing traditions will make transformation towards anti-racist/anti-oppressive practices extremely difficult to achieve because that level of change in individuals & institutions requires space to be vulnerable, make mistakes, & persist.]*

## PROJECT CONTRIBUTIONS
### (9/1/16 to 8/31/21)

The *Reflecting on Practice* program is designed for organizations to adopt and implement themselves, rather than having an outside expert come on-site or sending select individuals out to participate. The intention is for the community to learn about learning together, and in the process shape the language and meanings by which they do and talk about their work to support visitors' experiences.





### Three Key Areas of Impact
### RoP @sites

1. Anchoring practice in reflection & learning, for both individuals & institutions
2. Offering language & routines for negotiating meaning
3. Advancing the field through recognition & credibility

(Hartry & Nava, 2020)
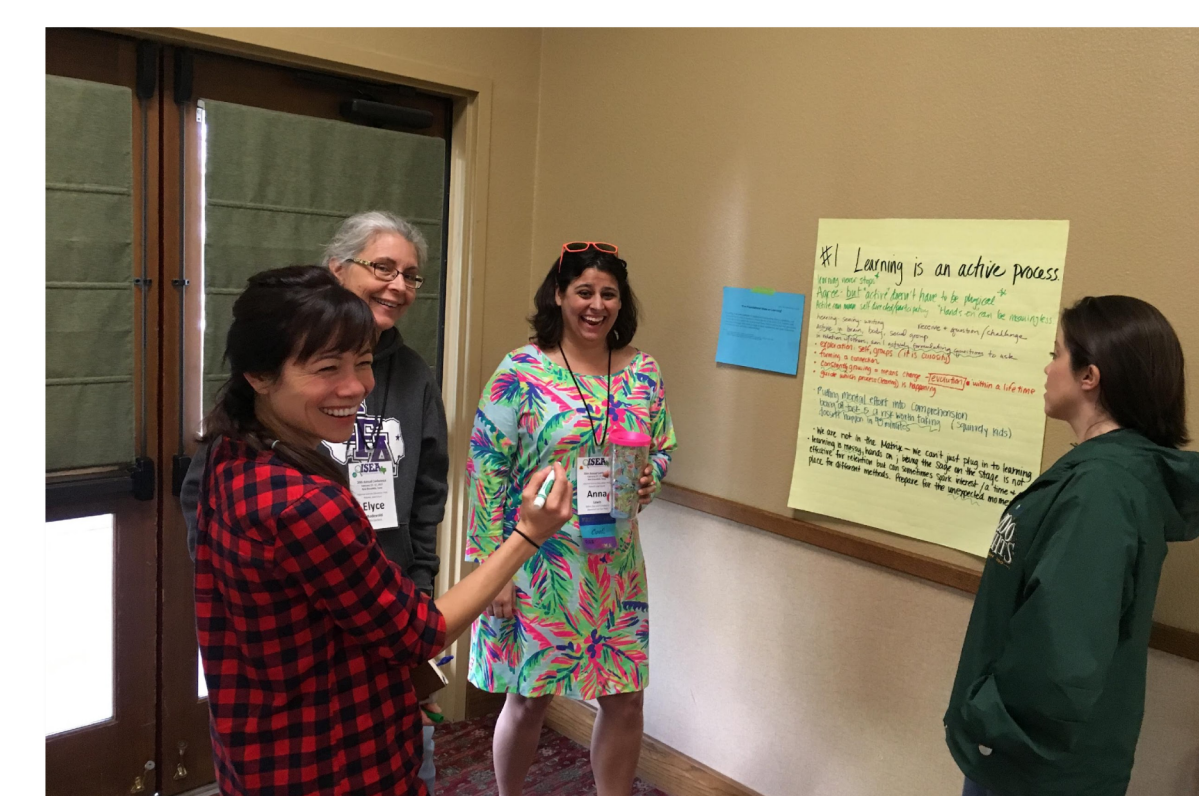


### RoP Online Learning Series
### (Fall 2020)

Participants reported:
1. strong impact on encouraging them to be more reflective (paying attention to their own teaching, reflecting on what practice were working well).
2. expanded their understanding of ways to engage learners online, introduced them to platforms and tools they could use to support that engagement, helped them see the value and possibilities of online engagement, and increased their confidence in their own abilities as online educators.

Three months after series, participants reported:
1. continuing to use RoP materials & incorporating key practices into their work
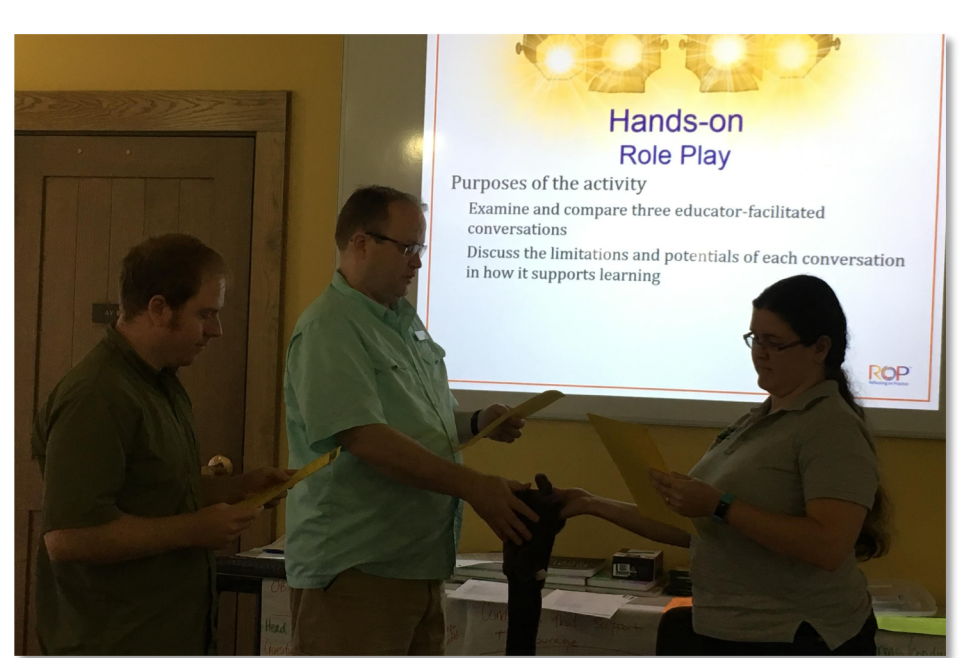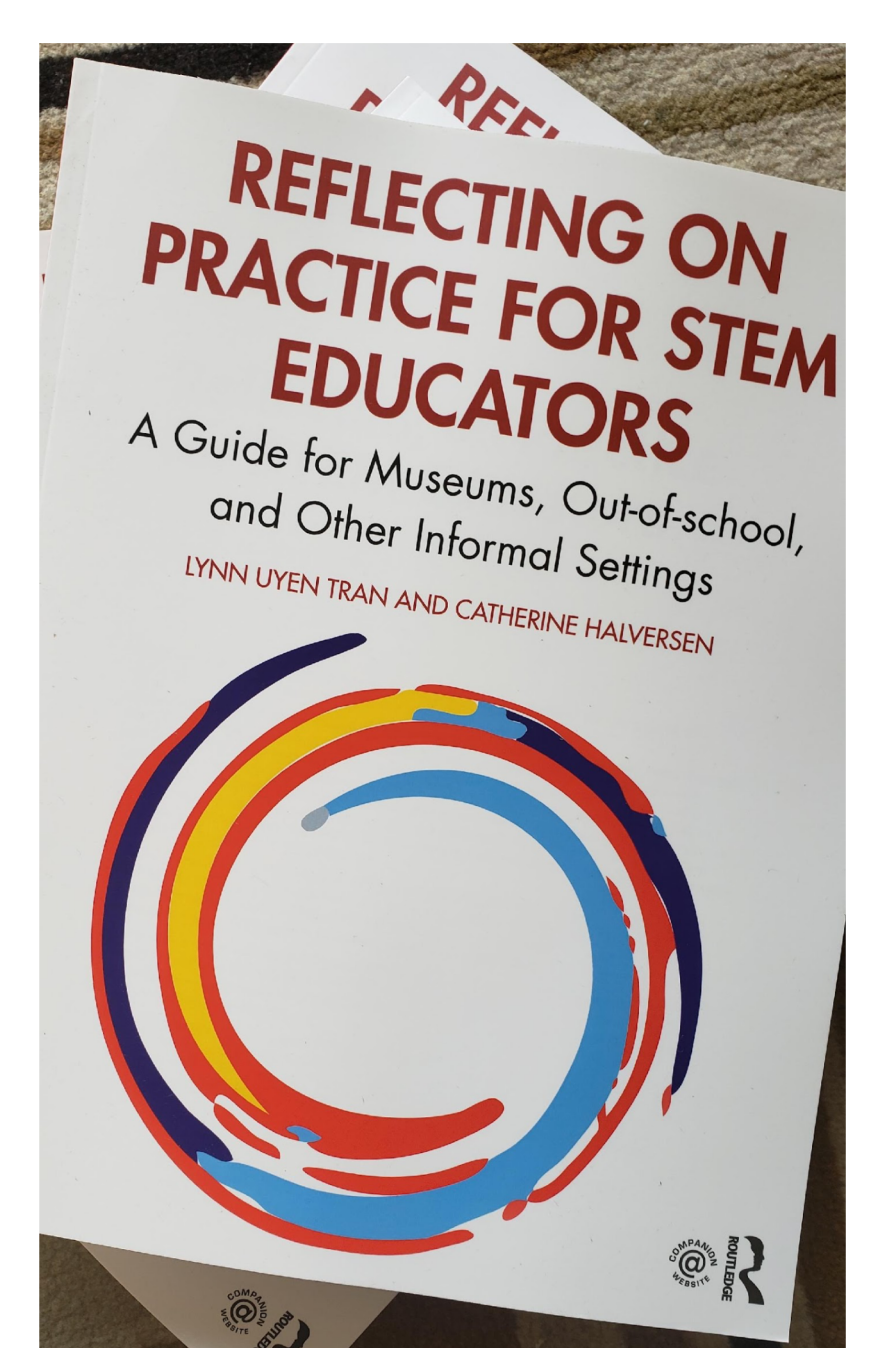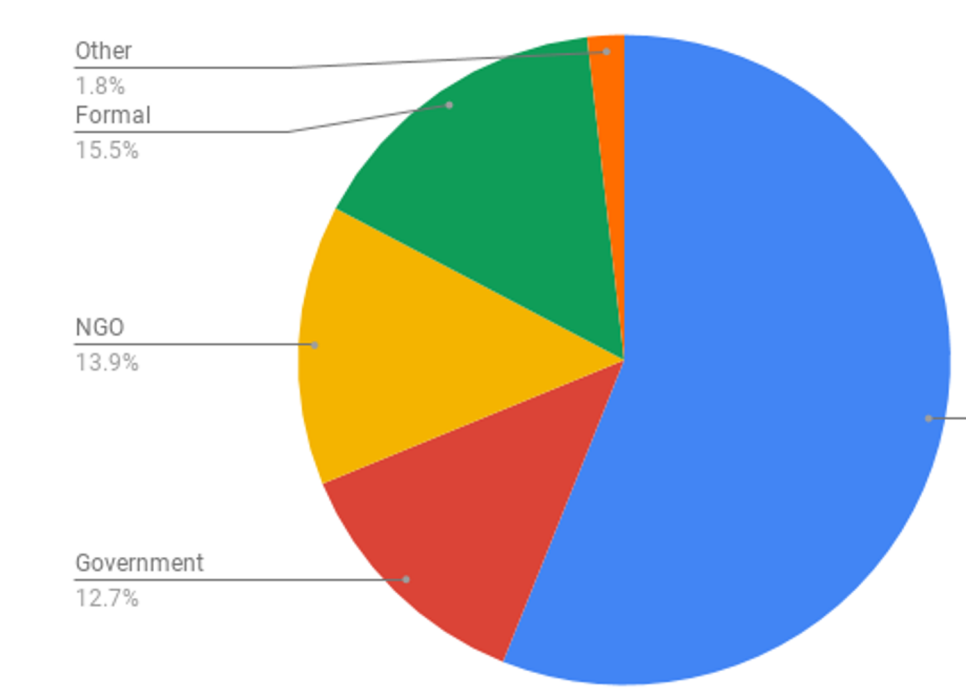


Over the duration of the project, our team of *RoP* Leaders offered **47** in-person, **3** blended, and **6** online workshops with more than **800** educators from over **450** institutions across **36** states and **3** countries. Participants brought *RoP* to colleagues at their institutions further extending the reach of *RoP* on educational practice in STEM learning.



Percentage of educators using *RoP* from different types of learning environments:
- ISI e.g., zoo, museum, aquarium
- government agencies e.g., national park
- formal education e.g., university, school
- NGO e.g., youth organization, library
- Other e.g., evaluator, consultant

### Justice, Equity, Inclusion, Access, Diversity

1. Field test Module 5 on DEI by 16 leaders from 8 organizations in the RoP community.
   1. 6 sessions, 2.5 hours each, using structure & routines in Modules 1-4
   2. the aim was to enable communities to lead one another through these difficult conversations and deep reflections, rather than exclusive reliance on contracting external experts to "fix us."
   3. implementation & evaluation was cut short by closures due to covid-19 pandemic
   4. skills & support are needed for facilitators, but positive responses from participants & facilitators (though small and incomplete) encourage us to explore this possibility further
2. Conversation Series (online only) in spring 2021 with 15 participants:
   1. 5 online meetings, 2-hours each, using readings and research from Module 5, and anchored in Tran & Gupta (2021) reflective practice with critical consciousness framework
   2. **Being analytical about power.** A major point of focus for the content in this series was to encourage participants to consider power beyond simply having it or not. There was need to be attentive to the outcomes from the power dynamics in order to shift control/influence
   3. **Opportunities to talk.** The topics explored in the series were not all entirely new to all participants. Novelty was not the purpose. Participants recognized & valued the time and space for dialogue among colleagues and peers across institutions to make sense of the ideas and issues in order to explore solutions.