

Partnership Development and Planning for STEM Certification in Out-of-School Learning

Peer-to-peer discussion
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CEISMC
Georgia Tech Center for Education Integrating
Science, Mathematics, and Computing

Story Introduction



Sirocus Barnes, PI (pictured here teaching) shared his story of how he began working in informal learning environments.

Project Introduction

The goal of this project is to strengthen the partnership between CEISMC and GSAN to explore the needs of STEM OSL educators and develop dedicated professional learning opportunities for OSL educators.

We believe...	Foundational Framework	Project Activities
Solutions for OSL professionals should be designed in collaboration with these professionals.	Participatory Action Research - researchers explore their research topic by building experiential knowledge in congruence with their participants (Baum et al., 2006; Cornish et al., 2023).	Partner identification Needs assessment •Focus groups/interviews •Listening sessions •OSL organization site visits
Partnerships are strengthened by the unique and individualized experiences that team members and participants bring to the partnership (Kezar & Lester, 2010).	Positionality Theory – acknowledges how one’s various, fluid identities and power relations within a space influence their work (e.g., research-Cadman et al., 2024; leadership-Kezar & Lester, 2010)	Written reflections Regular meetings
Partnerships between universities and OSL organizations can be beneficial, but require attention to logistical, communication, and ideological challenges (Gillen et al., 2021; Margherio et al., 2020)	Strategic Partnering Conceptual Framework - encourages intentionality and reflexivity of partners through a flexible approach to forming, building, and maintaining partnerships (Rogers et al., n.d.)	Organization assessment Partner Identification Partnership building Maintenance & evaluation

Promoting Reflexivity

- Introductions: Please tell us:
 - Your name
 - What motivates you to do this work

Promoting Reflexivity

In a fast-paced world, it's not always easy to find time to reflect. The following questions are designed to help us think deeply about our partnership work. There are no right or wrong answers. We'll discuss our reflections in our monthly partnership meetings.

How do you define STEM? In your definition, consider: Who belongs in STEM? What is the value of STEM as a field of study?

What does it look like to do high-quality STEM in an out-of-school setting?

How is your definition of STEM reflected in the work of your organization, if at all?

Questions for discussion:

- How do you structure your work/projects to carve out time for reflection?
- What strategies do you use to surface power dynamics that are invisible but influential (e.g., funding, institutional prestige, assumptions around whose knowledge is valued in what spaces)?
- How do you document reflexive insights in ways that actually get used, not just archived?

Trusting Partnerships Across Organizations

- Which of these values best represents what you personally, and your organization, believe are essential for a strong, effective partnership?

RESPONSIVENESS

FAIRNESS

IMPACT

ACCOUNTABILITY

SUSTAINABILITY

TRUST

JOY

INNOVATION

*COMMUNITY
BUILDING*

*SHARED
RESPONSIBILITY*

CREATIVITY

EQUITY

Trusting Partnerships Across Organizations

Guiding Partnership Values for Strengthening OSL Professional Learning

Trust

Trust is the belief that collaborators will follow through on their commitments and can be relied upon. It includes the confidence to be vulnerable and authentic, grounded in the expectation that others will act with integrity and honesty.

Community Impact & Building

Community impact is the intentional improvement of learning experiences and professional development opportunities. It involves creating work that benefits the OSL field and youth, while cultivating meaningful connections between people and ideas.

Responsiveness

Responsiveness includes active listening, prompt communication, and thoughtful engagement with community needs without making assumptions. It requires openness to feedback, willingness to adapt, and providing relevant, reputable resources.

Sustainability

Sustainability is the creation of structures, systems, and relationships that endure even as people, contexts, and funding evolve. It centers long-term stability, resilience, and well-being.

Joy

Joy is a sense of purpose, fulfillment, and positivity that emerges through our work. It reflects an environment of good energy, happiness, and shared enthusiasm for meaningful change.

Accountability

Accountability means honoring agreed-upon steps and actions, and engaging honestly in feedback. It includes holding oneself, and others, to commitments constructively, while acknowledging current capacity and workload.

Innovation

Innovation is the creation of new, cutting-edge ideas, tools, and processes that meaningfully impact people. It involves thinking creatively about research and generating improvements that advance our collective work.

Equity

Equity is meeting people where they are and providing the support they need for personal and professional success. It honors multiple identities, experiences, and centers co-creation.

Creativity

Creativity is the freedom to imagine, experiment, remix, and push beyond traditional boundaries by enhancing existing ideas or developing original ones.

Shared Responsibility

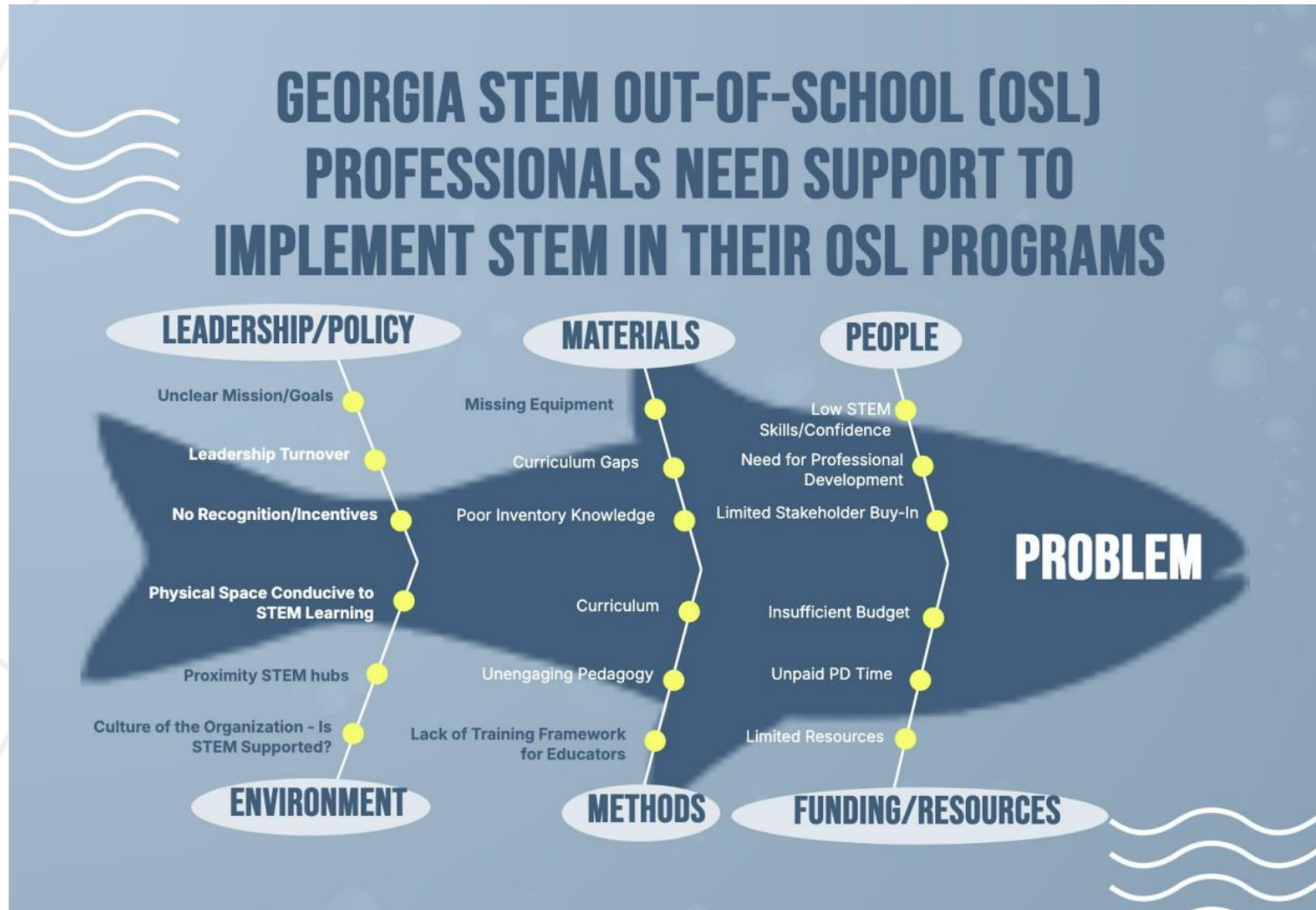
Shared responsibility means all parties hold mutual investment in project goals. Contributions may differ, but each person commits to delivering what they agreed to bring.

Questions for discussion:

- How do you develop effective partnerships quickly, while recognizing that trust takes time to build?
- What are warning signs that trust is being undermined in a partnership and how have you addressed it?
- What practices help you redistribute decision-making power to community organizations or practitioners?



Understanding Needs of STEM OSL Professionals



Understanding Needs of STEM OSL Professionals

- What are you noticing about the needs of STEM professionals in your informal learning communities?
- How are broader ecosystem forces (policy shifts, workforce shortages, funding volatility) shaping practitioner needs in your region?

What stories would you like to share?

- Stories of celebration
- Stories of advice
- Stories of your context

Contact Us?

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