AISL and Research-Practice Partnerships

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AI SL Program

- **Advancing** – Innovative projects that advance the field through building knowledge via innovative approaches and research.

- **Informal** – Learning that is lifelong, life wide, & life deep. Learning that occurs outside formal schooling systems.

- **STEM** – Not just focused on science, but all of NSF-funded STEM, including social and behavioral sciences.

- **Learning** – Learning outcomes typically include: interest, engagement, motivation, behavior, identity, persistence, understanding, awareness, knowledge, and use of STEM content and practices, and 21st century skills.
AI SL Program Priorities

The AI SL program has six priorities it believes are essential for achieving its goals. These priorities are also strategies to incorporate as approaches to the work.

Note: Every project does not need to address every priority.
Maximizing Strategic Impact

How does the project address important areas for continued development and advances the informal STEM learning field overall, not simply the project impact for the target audiences or communities?
Enhancing Knowledge Building

How does the project advance the knowledge base of the informal STEM learning field?

• Knowledge generation may focus on developing, testing, and/or implementing innovative research, models, resources, and tools for informal learning environments.
• The theoretical and empirical justification for the proposed project must be clearly articulated.
Promoting Innovation

In a manner similar to NSF programs that fund the frontiers of STEM research, AISL seeks to fund projects at the frontiers of STEM learning in informal environments that will advance the state-of-the-art.
Advancing Collaboration

This priority has two aspects. Projects should:
• leverage resources of partners; and
• evidence more focused, reflective approach(es) to building collaborations.

Collaborations should be integral components of the work funded.

The term “collaboration” is used to cover a wide variety of activities: collective impact, partnerships, inter-disciplinary work, networks, alliances, etc.
Strengthening Infrastructure & Building Capacity

Informal STEM Learning Sectors

- Media (TV, radio, film)
- Science center & museum exhibits and programs
- Public Participation in Scientific Research
- Cyberlearning
- Science Communication
- Science outreach programs
- Zoos & aquariums
- Observatories & planetariums
- Outdoor experiences, botanical gardens, & nature centers
- Out-of-school time & afterschool programs

Public Participation in Scientific Research
Broadening Participation

The AISL program contributes to NSF’s mission by supporting projects to engage professionals and publics from populations typically underrepresented in the STEM fields.

As of FY15, there are additional solicitation-specific criteria for projects in which broadening participation is a primary goal.
Research in Al SL Projects

Al SL supports research that advances knowledge and the evidence base for practices, assumptions, broadening participation, or emerging educational arrangements in STEM learning in informal environments, including the science of science communication (NAS, 2017).

With the release of NSF 17-573, research can be supported in through these mechanisms:

• Literature Reviews, Syntheses, Meta-analyses
• Feasibility, Pilot Studies
• Research in Service to Practice projects
• Can be components of Innovations in Development & Broad Implementation projects
Evaluation in AISL Projects

All AISL project proposals are required to specify the evaluative processes they would employ to achieve the following two goals:

1. **Support iterative improvement.** Evaluative processes should ensure that a project gets appropriate, rigorous, external input throughout the life of the project. Such input is essential for project monitoring, management, and continuous quality improvement. External feedback should enrich (and potentially challenge) teams’ perspectives.

2. **Promote accountability.** Evaluative processes should address questions such as: Is the project addressing its stated goals? What is the quality of the work?
Advancing Informal STEM Learning (AISL) Program

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504793