ITEST Convening - August 2014
Implementing High Quality Research and Evaluation

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PROJECT EXAMPLES

PARENT PARTNERS IN SCHOOL SCIENCE

LEAP INTO SCIENCE

FREE LIBRARY OF PHILADELPHIA

THE FRANKLIN INSTITUTE

STEM 3D

Integrating Science into Afterschool, Home, and Community

NSF

INSTITUTE OF MUSEUM AND LIBRARY SERVICES
Framing Evaluation and Research

- Each project positions evaluation as critical – both formative and summative.
- Essential role of evaluation in conceptualizing research.
- Theoretical frames used for research.
- Research grew out of commitment to contribute to the field.
- External evaluators played integral role during the proposal and research phases.
Evaluation vs. Research

**RESEARCH**
- Seek to generate new knowledge
- Researcher-focused
- Hypotheses
- Make research recommendations
- Publish results

**EVALUATION**
- Information for decision making
- Stakeholder-focused
- Key Questions
- Recommendations based on key questions
- Report to stakeholders

**METHODS & ANALYSIS**

Source: John LaVelle, AEA, 2010
• **Evaluation:** Participation; Implementation issues; Progress towards goals.

• **Research:** *How does a museum program provide opportunities for parents in a low-income, urban community to engage in their child’s schooling?*

• **Theoretical Frame:** – Angie Calabrese Barton’s Ecologies of Parent Engagement (EPE)

Institute for Learning Innovation: Jessica Luke, Ph.D.
Evaluation:

LEAP Pilot:
- Interest, science attitudes, implementation

LEAP FSD:
- Capacity of individuals and institutions
- Sustainability of program at sites
- Potential for/interest in scale-up

Research:
- Focus on broader LEAP trajectory
- Scale up (Coburn, 2003) defined with four inter-related dimensions (depth, sustainability, spread, & shift in ownership)
Project Goals

- Increase youth engagement in hands’ on, inquiry based, science projects
- Cultivate intergenerational/parental support for science learning
- Provide a better understanding of the ways in which community-based-organizations can increase awareness of and access to science learning and STEM careers.
**Evaluation:** primarily formative

**Research** originally conceptualized as:

- identifying learning processes and outcomes
- exploring how museums and OST centers could work together to address gaps in STEM experiences in underserved communities
Key evaluation successes:
• Evaluation is seen by all as key to project.
• Evaluation data contributes a different lens on enacted curriculum, site capacities, and family involvement.

A key evaluation challenge:
• Coordination and communication with out-of-school sites (this is true for program staff and for evaluator)
Implications for research questions and research design

- STEM outcomes for youth and adults
- Partnerships to support STEM capacity in out-of-school sites

Research topics/approaches will connect to literature in the field and will build on knowledge built through process of STEM 3D evaluation.