



June, 2016

## Notes on Sustainable STEM Collaborations



# Make, Do, Share: Sustainable STEM Leadership in a Box

- Kitsap Regional Library, in partnership with community stakeholders, such as The Coffee Oasis, a refuge for homeless and at-risk youth; Bremerton School District; and Applied Technical Systems, Inc. (ATS), a national technology company.  
<https://www.imls.gov/grants/awarded/lg-80-15-0085-15>
- Develop, test, and deliver a ready-to-use system that empowers small and rural libraries to become community STEM leaders. Elements can be replicated individually or together, so they can fit the needs of any library. They will include:
  - Curricula for multiple participatory, hands-on STEM programs driven by interest-based projects and peer-to-peer learning
  - A badging module to measure meaningful 21st century career readiness outcomes
  - Training for librarians, adult STEM volunteer mentors, and teen peer leaders
  - A process for permanently increasing STEM capacity, (librarian is facilitator of a connected community with the library at its heart, where schools, businesses, and youth themselves work together to support peer-driven, inquiry based learning)

## Empowering public libraries to become science resource centers for their communities – A Guide for State Library Agencies

Maine State Public Library, <https://www.imls.gov/grants/awarded/lg-80-15-0041-15>

Highly collaborative project (engages three additional State Library Agencies (Massachusetts, Vermont and Rhode Island) and their professional association Chief Officers of State Library Agencies; Cornerstones of Science; six pilot public libraries in two states; thirteen non-profit research, library, private foundations and informal science organizations and two science and technology corporations.

Key results of this initiative include: (1) online STEM Resources Clearinghouse (how-to guides, database of science programming suitable for public libraries, librarian training programs, evaluation tools, etc.); (2) expanded SLA STEM capacity and advocacy; (3) the expansion of public library capacity that enables them to successfully support ongoing STEM programming within their daily operations; and (4) a Guide that SLA's can use to nurture STEM in public libraries.

## Vermont Department of Libraries' Vermont Early Literacy Initiative - STEM (VELI-STEM)

- Partner with the Vermont Center for the Book (VCB) and the Montshire Museum of Science (MMS) to equip public librarians from 25 Vermont libraries with concepts and practices essential to STEM learning appropriate for children ages 3-7  
<https://www.imls.gov/grants/awarded/lg-80-15-0112-15>
- Tools to deliver intentional, open-ended, ongoing and standards-based STEM learning experiences and programming
- Give librarians approaches that build on their own expertise while incorporating new content and skills

Provide librarians with resources and training to weave STEM language and ideas throughout their programming for young children, parents and community childcare providers

## Lessons Learned from Vermont

1) **Evaluator on board from the beginning.** Designing evaluation and assessment, determining data collection (what elements, how collected, how often collected, etc.), getting baseline data from participating libraries, and planning reporting tools, etc. is critical. (Evaluator selected before grant was submitted so were able to hit the ground running).

## Lessons Learned from Vermont

2) **“It takes a village ...”**: a big project needs a team of experts with experience and skills – everything from STEM experts to assessment/evaluation, social media and website development, children’s literature/STEM resources, training .... Experience with training and planning conferences as well as strong relationships are important.

# Lessons Learned from Vermont

3) **Communication is key** – and establishing team member roles and responsibilities from the beginning is important.

- Regular communication among team members (in-person, virtual, phone)
- Communication with participating libraries (communication with library director is essential to ensure full participation by staff); quarterly or six-month short report to library director and library board
- Communication with the team member(s) responsible for fiscal management. Set up procedures from day one.
- Communication with the outside world
  - Good kick-off (press conference with the Governor)
  - Report periodic highlights to IMLS (for blog ....)
  - Establish media contacts and use statewide and local media to keep project in the eyes of policy-makers, local officials, parents, childcare providers, citizens...
  - Collaboration between libraries and community early childhood (child care) people is easier when there's already a common goal and buy-in on the part of both partners. Groundwork was laid by helping librarians make important community contacts, so librarians were ready to hit the ground running. Librarians also had opportunity to form relationships with families of young children.

# Key Elements of Sustainable Partnerships

- **Clear roles and genuine mission alignment:** For grant funded projects, if one partner is paying the other as a service provider it opens instant sustainability questions. Ideally, the asks and offers are clear fits for each partners core missions.
- **Complementary but Distinct Symbiotic Roles and Expertise:** Ideally, there is a genuine need and value each partner provides to the other.
- **Vertical Horizontal Connections:** Either connecting with other partners doing complementary work in your area or crossing the local, to the regional or the national in a particular area of overlap.