



## **Creating Communities of Learners for Informal Cognitive Science Education** (Kipling; 1113648)

## What is Living Laboratory?

Living Laboratory is a model for museum-academic partnership that aims to educate the public about child development by immersing museum visitors in the process of scientific discovery. In the Living Laboratory® model, collaborating scientists conduct their studies within dynamic museum exhibits, rather than behind closed doors. Families visiting the exhibits are invited to participate in ongoing research studies and engage in one-on-one conversations with scientists about the process and results of research.

Living Laboratory embraces a "mutual professional development" philosophy, in which museum educators and scientists share their expertise with one another through a variety of regular interactions.



Researchers receive ongoing training in informal education practices from museum educators, improving their ability to discuss their work with the public in accessible, engaging, and easily understandable ways.

Likewise, museum educators learn about the scientific study of child development, including the methods used by scientists to systemically observe children's learning – information that can be incorporated into their own interpretive practices and exhibit design efforts.

## **Living Laboratory Impacts**

#### **Recent Publications**

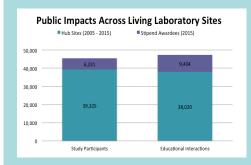
Corriveau, K.H. & Harris, P.L. (2015). Children's developing realization that some stories are true: Links to the understanding of belief and signs. *Cognitive Development* 

Lane, J.D. & Harris, P.L. (2015). The Roles of Intuition and Informants'. Expertise in Children's Epistemic Trust. *Child Development* 

Posid, T. & Cordes, S. (2015). Verbal Counting Moderates Perceptual Biases Found in Children's Cardinality Judgments. *Journal of Cognition and Development* 

Renno, M.P., Shutts, K. (2015). Children's Social Category-based Giving and its Correlates: Expectations and Preferences. *Developmental Psychology*.

Smith, C.E., & Warneken, F. (2016). Children's Reasoning About Distributive and Retributive Justice Across Development. *Developmental Psychology*.







# National Living Laboratory (NLL)

With support from the National Science Foundation, the NLL initiative connects a growing community of museum and research professionals who are interested in bringing current research in child development to informal learning settings (science centers, children's museums and others).

### **Project Goals:**

- Increase the ability of scientists & museum educators to establish and maintain effective educational partnerships.
- Improve research scientists' interest in and ability to communicate their research to lay audiences.
- Increase museum educators' interest in and ability to integrate child development science into their educational offerings for adults.
- Increase adult visitors' awareness and understanding of cognitive research.



The Living Laboratory model was developed at the Museum of Science, Boston. In Phase One of the Broad Implementation project, the LL model was adopted at three additional museums in order to facilitate development of four "NLL Hub" sites:

- Museum of Science & Harvard University/Boston University
  Boston, MA
- Maryland Science Center & Johns Hopkins University Baltimore, MD
- Madison Children's Museum & University of Wisconsin
  Madison. WI
- Oregon Museum of Science and Industry & Lewis and Clark College Portland, OR





Each hub site supports the implementation of new Living Laboratory collaborations in their region. Hub leaders interact with community members both virtually and face-to-face at project-sponsored meetings and professional conferences.

- Thirty Living Laboratory sites beyond the hubs are active in the US.
- More than 600 scientists and museum professionals (from 350+ institutions, across 48 states and 21 countries) have joined the National Living Laboratory community.
- Community members represent 147 informal learning organizations (science centers, children's museums, libraries and others) and 59 colleges and universities.

Broad Implementation of Living Laboratory across four dimensions: Preliminary Summative Evaluation Findings:

- Depth all nine "Essential Elements" of Living Laboratory are widely implemented across a range of sites, suggesting the value of both the public-facing and mutual professional development aspects of the model
- Spread "hub leaders" have been instrumental in dissemination via interpersonal relationships; the "toolkit" has been spread widely via digital distribution on <a href="https://www.livinglab.org">www.livinglab.org</a>
- Sustainability key components are financial (more than 50% of sites have sought funding) and delegation of responsibility among multiple individuals in each organization (to smoothly transition during staff turn-overs)
- Change in Ownership sites employ diverse approaches to balancing tasks between museum staff and researchers, adapt essential elements to fit locale and adapt program resources to individual contexts