Children's Museum of Southern Minnesota

GUSTAVUS ADOLPHUS COLLEGE

National Living Laboratory 2015-16 Cohort Stipend Final Report

Who Are We?

The Children's Museum of Southern Minnesota (CMSM) seeks to be the catalyst for building a stronger, more vibrant community around play so that all children in the region share in a bright future of opportunity and well-being. They accomplish this by igniting the natural curiosity of every child through the power of play in a dynamic, awe-inspiring environment. The Center for Developmental Science (CDS) is a research facility that focuses on early childhood cognitive development in the Department of Psychological Science at Gustavus Adolphus College, a small residential undergraduate liberal arts college. The Co-Directors also teach undergraduate Child Development courses. The CDS and the CMSM have been working together for the past 8 years to develop creative ways to help each other achieve institutional outcomes through collaboration. Supporting a Living Laboratory and implementing a Research Toy curriculum are two of the ways that we work toward that end.

Goals of the NLL Stipend Award

First, we wanted to advance our mutual professional development by having Gustavus students and faculty present research findings at museum staff education meetings, and integrating the Greeting process into our Living Lab. Next, we wanted to thoughtfully integrate the design and development of Research Toys into the undergraduate psychological science curriculum at Gustavus. Finally, we wanted to share results and outcomes from Living Laboratory projects with the Southern Minnesota community through poster symposia.

Enhancing the Visitor Experience

Our Living Laboratory (pictured on the left below) is located centrally in the museum where families can easily see the research being conducted and discuss the research with undergraduate students. Research Toy stations (pictured on the right below) are interspersed throughout the main floor of the museum so that visitors can participate as they move from one main gallery to the next.

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Living Laboratory
Developed at the Museum of Science, Boston

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Mutual Professional Development

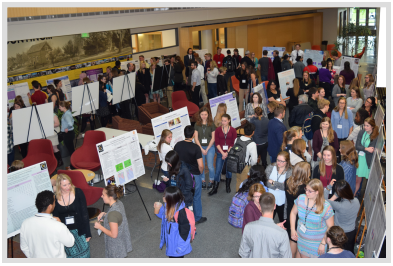
In addition to Deb Johnson from CMSM and Kyle Chambers from CDS, the Museum and Academic Living Laboratory Team consists of Megan Flod Johnson, Program Manager at CMSM, and Patricia Reeder, Co-Director of CDS. Deb Johnson spoke each semester in Child Development (PSY 234) at Gustavus to help orient the students to the mission and objectives of the Children's Museum and the purpose of Research Toys. Lili Rothschild, a research assistant from CDS, gave an overview of a study that would be conducted in Living Laboratory at the Children's Museum's regular staff meeting, and Kyle Chambers spoke to the same audience about conducting exhibit evaluations.

Research Happenings at Our Site

The CDS continued to host studies on early cognitive development in Living Laboratory (see picture left); however, our primary focus this year was designing and prototyping Research Toys in Child Development (PSY 234). Each semester ~60 students worked in groups of 4 to 5 students to develop a Research Toy and Interpretation Guide. As part of the semester-long project, students prototyped early versions of the Research Toys on the museum floor (e.g., picture below right) to see how children and parents responded and to receive feedback from museum staff. As seen in the Table, not surprisingly, we increased the approximate number of research toy interactions this year.

Year	Research Participants	Educational Opportunities	Research Toy Interactions
2014-2015	39	15	0
2015-2016	76	29	~500

Outcomes and Future Goals



Students who developed Research Toys or conducted research as part of Living Laboratory presented a summary of their projects to museum staff and the public at two Psychological Science research symposia and participating in the Research Toy project clearly had an impact on the undergraduate students. In their words, "It showed me that research can be fun and still scientific and rewarding," and "The project helped me see a process we learned in class take place in real life, which was extremely beneficial for my learning."

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