Building a Culture of Inquiry
Buying into Research

• Academic Background
• Early Childhood/Learning Specialist
• Advisories: From Founding Board to Early Learning Research in Action Council
Collaborations

• AirWorks For Kids Project

• Preschoolers, Parents and Educators/The Adult-Child Interaction Inventory

• Internal Efforts: Observation, Evaluation, Marketing, Long-term Relationships
Research and Evaluation Projects at the DuPage Children’s Museum
Research Studies

Questions Emerging from DCM Staff
Frequent Visitor Interview Study

Rivera, N. & Schacht, P.

• 10 total interviews

• Criteria for inclusion based on frequent visits to the museum (at least 20 visits in one year)

• Oldest child 10 years old, youngest 2 months; most children between ages 3 to 8

• Two children with Autism

• Interviewed:
  • 4 mothers
  • 1 father
  • 2 sets of parents (together)
  • 2 grandmothers
  • 1 in-home care provider
| Social experiences (Social) | Spending time with friends/family/other people  
Seeing my children learning new things | • Families that immigrated and came to the museum to see other families  
• Families that bring the children so they can interact with others  
• Grandparents who bring the children in order to spend time with the children  
• Helping children navigate the social landscape of the museum |
|---------------------------|-------------------------------------------------------------|
| Object experiences (Physical) | Being moved by beauty  
Something rare/uncommon/valuable things | • Interacting with things that you can’t do at home  
• Museum as a safe place  
• Place for indoor activity/  
• Strategic management of the visit: avoiding crowds, structure to match nap times  
• Child recognizes / requests the museum  
• Although the adult is still providing structure, the children often have a sense of routine in the space and do direct the visits |
| Cognitive experiences | Enriching my understanding  
Gaining information or knowledge  
Reflecting on meaning of what I was looking at | Child’s cognitive development  
Being a co-learner with the child  
Child’s learning process  
Sense of value—the museum is a place for learning |
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| Introspective experiences | Feeling a spiritual connection  
Imagining other times/places  
Thinking what it would be like to own such things  
Recalling my travels/childhood experiences/other memories  
Feeling a sense of belonging | Being an observer of the child  
Adults that connect with previous work experiences or childhood experiences  
Sense of community/belonging |
Youth Volunteer Study

• Completed 10 interviews with youth volunteers who also visited the museum as a child

• Collaborated with DCM staff to identify potential participants and develop interview questions

• Goals were to explore their memories of earlier experiences and learn about their motivations to volunteer
Research Questions

• How do youth volunteers describe early visitation experiences at the children’s museum?
• How do youth volunteers perceive the impact of early visitation experience?
• Why do youth volunteer at the children’s museum?
• What are the perceived benefits of volunteering at the museum?
Main Themes

- Strong early memories associations with social, physical and cognitive aspects of the visits.

- Related early experiences with developed skills and interests.

- Motivated to volunteer by both extrinsic and intrinsic factors.

- DCM makes learning “fun”
Inquiry and Research

Questions Emerging to Meet the Needs of the Organization
Learning Framework Data Collection:

- Interviews with DCM administration
- Feedback from DCM’s Education Committee
- Group meeting with DCM staff
- Focus group study: Parents’ Perspectives of Play and Learning
- Ask It Board with children on the museum floor

Questions were based on:


DuPage Children’s Museum Research
Parents’ Perceptions of Play and Learning

• Three focus groups held during the summer of 2016

• A total of eight parents participated in three focus groups. The parents represented 14 children ages 2 months to 9 years as well as older children. The participant group included 2 fathers and six mothers. Six parents described themselves as members of the museum.
Parents’ Roles in Play

• Parents described a range of roles that they take in their children’s play such as supervisors, facilitators, and co-players.

• Parents did appear to recognize that their interests and preferences impact how they play with their children.

• Some parents described not feeling confident as play partners or a sense of judgement that other people “do this better”.

“I am not super engaged or active in their actual play. For better or worse, it doesn’t come naturally to me. I love being with them and I love watching them play, but I like am not...

I know a lot of moms, especially stay-at-home moms are different and much, much better about that stuff.”
Benefits of Play

- Social skills
- Body-space awareness
- Problem solving
- Language development
- Self-control
- Self-expression
- Risk taking
Definitions of Learning

• Learning was described by participants as both a process and set of outcomes.

• In some cases, learning was described as a more intentional, adult-driven act than play.

• For some parents, learning was more associated with formal learning environments, explicit skills, and outcomes.

• “My wife and I have been talking about this recently. When my son was younger, she was very active and proactive in being the facilitator of his learning. You know, through trying to teach him colors and shapes and numbers...”

• “It’s academic smart, which I think is a part of learning. I mean you do have to have some academic skills to survive in the world. To be able to count your change...”
The Role of the Museum in Supporting Play and Learning

Across the board, the parents spoke highly about the value of the DuPage Children’s Museum to support their children’s play and learning. The families value what DCM provides and how it is unique in terms of content, space, intention, and people.

To broaden our understanding of parents’ perceptions of play and learning, our research team developed a survey instrument which was piloted with a parent board at DCM. We are ready to launch the full survey!
Exhibit Evaluations
Evaluation Protocols

• Time and Tracking
• Visitor Engagement
• Running Record
• Exit Interviews
• Tracking responses to signage
• Children’s responses

PROTOCOL 3: CHILDREN’S RESPONSES TO “WHAT’S YOUR DREAM”?

Children’s responses were collected for three weeks by the Museum staff. A total of 1,503 responses were collected. 856 (57%) of the responses were characterized as scribbles. The remaining 647 (43%) of the responses included images and words. The items containing images and words were coded and categorized. The following chart represents the breakdown of the children’s responses.

Children demonstrated a broad range of responses to the prompt. While it was not clear that some of the responses related to the idea of “dreaming”, many did appear to be expressions of wants and future desires that ranged from tangible items to more altruistic notions of love and peace.
"RESEARCH MATCH.COM"

• What is the motivation of the academic institution - teaching, publishing? Does the researcher have the freedom to decide?

• What is your timeline for publication and/or direct use of the information you gather together? (The exhibit opens in 6 months? A formal journal in 2 years?)

• What are the methodologies to be used? Do they match your spaces, your staff's and your visitors' expectations?

• How ongoing do you want your relationship to be?

• How comfortable are you (staff, volunteers, etc.) with "outsiders" asking questions about you and your practice? How comfortable will your visitors be?

• Have you examined your own beliefs about learning and children before a researcher contacts you or vice versa? (The "religion" question?!)
Children’s Museum Research Network
Participants were asked to read the landscape review prior to the meeting. Over the two days, the group worked to generate a draft of a field-wide research agenda. Follow up webinars and sessions at Interactivity provided more feedback to support the development of the research agenda.
The agenda “identifies and prioritizes the evidence most needed by the field to articulate and demonstrate the distinct learning impacts of children’s museums”.

Broad categories include:

- Characteristics of Children’s Museums
- Audience
- Learning Landscape

Building A Practicing Research Network in the Children's Museum Field

The next phase of the Learning Value of Children's Museum project is called Building a Practicing Research Network in the Children's Museum Field. ACM received a three-year IMLS grant, 2014–2017, to foster the field's capacity for research and create a self-sustaining research network. The main activities of this second phase of the project include:

• Selecting a cohort of ten children's museums through an open application process to form the foundation of the research network.

• Developing connections between the cohort museums to identify potential research projects.

• Conducting three to five research projects across multiple institutions in the cohort.

• Providing professional development through ongoing coaching and feedback during the research/evaluation planning phase.

• Analyzing data collected and reporting results to cohort museums and the broader children's museum field.

• Adding additional children's museums to the cohort in 2016.

• Cultivating the network to create a self-sustaining infrastructure for research in the children's museum field.

Children’s Museum Research Network

- Boston Children's Museum
- Children's Museum of Houston
- Children's Museum of Pittsburgh
- Children's Museum of Tacoma
- DuPage Children's Museum
- Minnesota Children's Museum
- Providence Children's Museum
- Thanksgiving Point Institute
- The Children's Museum of Indianapolis
- The Magic House, St. Louis Children's Museum
How does the CMRN operate?

Face to face working meetings:
Meetings at Interactivity
Meetings at the University of Washington (2-day working meetings)

Monthly phone meetings

Information sharing and discussion through Groupsite

Phone and Skype meetings as needed for individual/ small group meetings

Co-writing through Google docs

Individual meetings between partner museums
CMRN Research
SIG 1: CM’s Beliefs about Learning

Focused on the Research Agenda question, *What are children’s museums beliefs about learning?*

Looked specifically at institutional learning frameworks

Three research questions:

1. What major vocabularies do these frameworks share? Where do they diverge?
2. What constructs do children’s museums use and prioritize in their learning frameworks?
3. What learning theories do these frameworks implicitly and explicitly reflect or endorse?
SIG 2: CM’s Conceptualizations of Play and Learning

• Builds on results from first study

• Focuses more specifically on play and learning within a larger sample of children’s museums

• Members of the research team completed 50 interviews with a representative sample of ACM professionals from across the country

• Aims to describe how children’s museums conceptualize play, and how they position themselves and their work relative to play
SIG 3: Parent Engagement

SIG 3 is launching at this conference.