Building a Community of Playful Learners (one brick at a time!)
Characteristics of playful learning experiences

- Joyful
- Actively engaging
- Socially interactive
- Meaningful
- Iterative
Let’s play
45

CHALLENGE:

Build a duck
What *strikes you*, when you look at all *these creations*?
What happened?

6 LEGO® bricks

24 skills

attention
mental imagery
long-term memory
self-regulation
emotional regulation
self-efficacy
visual search
symbolic representations
kinesthetic awareness
spatial visualization
sensory-motor skills
mental rotation
working memory
spatial abilities
fine motor skills
short-term memory
cognitive flexibility
imagination
self-assessment
perspective-taking
adaptive social functioning
imitation
visual perception
pretense
The LEGO Group at a glance

Family-owned
Danish company founded in 1932

The LEGO name comes from "LEg GOdt", meaning ‘play well’

#1 Reputable Brand
Source: RepTrak® 2023

111 countries

27,300+ colleagues

25% of profits to the LEGO Foundation
Develop children’s critical skills through learning through play and inspire and educate children on sustainability.

Inspire and engage parents in learning through play.

Inspire and enable colleagues to bring learning through play to their workplaces, homes & communities as Play Ambassadors.

Safeguard children and protect and enhance their rights.
THIS all began in 2021...

Sharing a mission
The LEGO Group has worked ad hoc with children’s and science museums but always wanted to do more.

Building partnerships
In 2021, the LEGO Playful Learning Museum Network was established 13 museums in urban centers. 2022 saw an expansion to 16 museums.

The time was right
Museums innovated and adapted to reach even more non-traditional museum goers during the COVID time, and we were incredibly impressed.

Community of Practice (CoP)
Museum staff discuss how might we collaborate, co-create and integrate even more Learning through Play through out the museum and beyond.
Empowering museum staff with networking, learning and sharing opportunities via a Learning Through Play Community of Practice

Year Two: Further Deepen Learning Through Play and Strengthen Community Partnerships

Exposing and inspiring a total of 1.8M children and 1M caregivers

Engaging underserved children in experiences through mutually beneficial, deep partnerships

Empowering museum staff with networking, learning and sharing opportunities via a Learning Through Play Community of Practice
2022-23 Partners
Characteristics of playful learning experiences

- Joyful
- Actively engaging
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Children's Creativity Museum, San Francisco
Mystery Box Challenge:
A toolkit that museums and organizations can deploy for playful learning
Co-Creation Partners

- Children’s Museum of Sonoma County
- Habitot
- Monterey Youth Museum
- Sacramento Children’s Museum
- Santa Cruz Children’s Museum

Significant activity modifications

- Strength-based
- Partner-specific limitations
- Co-created completely new practices
- Challenged our assumptions about what can vary and what cannot
Pivoted from professional development model to coaching & technical assistance model
Pilot Partners

• Galing Bata
• YMCA-San Francisco

ACM Session Friday 1:15-2:30

Scaling Respectfully: Co-developing Play-Based Activities Across a Museum Network
LEGO Playful Learning Museum Network
Mission: Connecting people to inspiring science

4 Strategic Action Pillars of MODS

- Environmental Sustainability
- Physical Science Education
- Early Childhood Education
- Health and Wellness Education
Partnership Overview

To strengthen children and families through innovative education, supportive programming, and community engagement.

- Children 6 weeks to 5 years-old
- A long-standing partner with MODS
- Using existing trust to co-create something new focused environmental stewardship
Community of Practice Components

Teacher Professional Developments

Family Nights at MODS

Outreach to the School

Field Trips to MODS

Learning Through Play

- 80 Students
  - 2 Classroom of 3–4-year-olds
  - 2 Classrooms of 5-year-olds

- Play Support
  - 1 Duplo Box per class
  - 1 class set of Duplo Six Brick per class
  - 4 sets of Duplo Six Brick per family
  - Digital Resource sharing with teachers
Jack and Jill – MODS Partnership

**Learning Outcome**: encourage children to raise questions about the natural world and make observations to answer those questions.

- **October**
  Weather the Storm
  - Make a wind resilient city

- **November – January**
  Everglades
  - Learn about and build habitats for Florida native animals

- **February – April**
  STEAM
  - Learn about and make Eco-Art

- **May – July**
  To Fly
  - Learn that wind has energy and make a wind farm
How to Learn Through Play at Home?

Special Time!

15 minutes
4 Days a week, or more

PRIDE

Praise – “I like the way you are stacking those blocks”
Reflect – repeat what they are saying
Imitate – do what they do and listen for their instructions
Describe – narrate what they are doing
Enthusiasm – Smile, Clap, Cheer them on, Express gratitude
Interim Findings

• **What’s working…**
  • Teachers use Learning Through Play useful in classroom
  • Students are starting to link to ideas of sustainability and resilience
  • Scaffolding of activities is working
  • Students are reaching learning outcome
    • Through observational evaluation
    • School staff is using a playful mindset in everyday activities

• **Needs more…**
  • More direct support of teachers
  • More opportunities for families to participate
  • More direct interaction/feedback from families
Discovery through Design

A LEGO Museum Initiative
Discovery Place's Learning through Play project
Branch 1 – Community Partnerships

(Project Based)
Age-Appropriate Design Challenges using Sustainable Materials:

Discovery Place Kids Huntersville (K-2)
Discovery Place Science (3rd – 8th grades)
Branch 1 - Partner Professional Development

Partnership with Out of School (OST) organizations to facilitate the project design challenges over nine weeks.

Greater Enrichment Program
Above and Beyond
Catawba Nation
Our Bridge for Kids

Contact Hours: 12

*Images made by afterschool care professionals while completing a mini design challenge during their professional development session.*
Branch 2: UFTEs

Designed with sustainable materials, UFTEs engage guests in tinkering and active learning while sparking conversation around conservation, biodiversity, pollution, alternative energy, and more.
**Branch 2: UFTEs**

Numbers and Reach

<table>
<thead>
<tr>
<th></th>
<th># children &gt;18 years</th>
<th># adults (caregivers, teachers, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expose (broad reach)</td>
<td>12,368 (target)</td>
<td>25,299 (target)</td>
</tr>
</tbody>
</table>

UFTEs go through two iterations & are evaluated by our Director of Evaluation and LEGO Team Lead for a third iteration and to produce quality experiences for our guest across museums before exhibiting for an extended run.
Project Evaluation

Branch 1
- Participation Metrics
- Draw a Scientist Task
- Digital Artifacts
- Surveys

Branch 2
- Attendance Metrics
- Observational Coding
- Interaction Counts
Draw a Scientist Task

1. Describe what the scientist is doing in the picture. Write at least 2 sentences.

2. List three words that come to mind when you think of this scientist:

3. What kinds of things do you think this scientist does on a typical day? List at least three things:

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2. List three words that come to mind when you think of this scientist:

3. What kinds of things do you think this scientist does on a typical day? List at least three things:
Observational Coding of Deep Learning

(1) Meaningful
(2) Joyful
(3) Social (collaboration, co-learning)
(4) Active engagement
(5) Iterative (experimentation, adaptation)
Partners in Play
Chicago Children's Museum
in partnership with Friends of the Children
Why Did We Create *Partners in Play*?

Builds on CCM’s *mission to improve children’s lives by creating a community where play and learning connect*, and our commitment to empowering the important adults in children’s lives to support their growth and development through play.

Partners in Play utilizes a *multi-touch model* to create sustained impact.
Engages **Friends of the Children** as our partner:

1:1 mentorship organization with paid, professional mentors.

Each mentor stays with their child for 12 years, no matter what.

Children served reside in Chicago communities impacted by generational poverty.

Photo: Friends of the Children
Why is this a mutually beneficial partnership?

Friends of the Children: experts in building sustained, nurturing relationships with individual children and their families.

CCM: experts in connecting children and adults with meaningful, critical opportunities to learn through play.

Together: we can make a difference by creating sustainable “learning through play” opportunities and by providing support through resources, training, and access.
Co-creation: Supporting Partner's Goals

• Partner desired training and resources that were aligned with their goal areas for children:
  – Prosocial Development
  – Self-Awareness and Identity Building
  – Independence
  – Literacy

• Desired training on trauma-informed practices

• Desired museum access and at-home Play Kits that focused on STEAM-learning and constructive play
Components and goals of the initiative

- **Professional Development for Mentors**
  - Increase adults' knowledge of Learning Through Play; create advocates for play

- **Professional Development for Staff**
  - Create access to iterative play experiences

- **Museum Membership**
  - Expand Learning Through Play to children's extended families and homes

- **Family Days**

- **Play-At-Home Kits**

Museum Membership

**CHICAGO CHILDREN’S MUSEUM**
Outcomes for Mentors

90% of mentors will:

• report professional development sessions and resources increased their knowledge of “learning through play” strategies.

• be able to give examples of how *Partners in Play* resources have positively supported mentees’:
  
  – Prosocial Development
  – Self-Awareness
  – Independence
  – Literacy Development

Photo: Friends of the Children
Outcomes for Family Engagement

• 70% of mentees are joined by one or more caregivers at one Family Day.
• 265 Learning Through Play kits are distributed to mentees and siblings
• 100% of mentors engage mentees and families with the kit materials.
Outcomes for Staff

• 90% of staff report professional development sessions increased their knowledge of how to support LTP at CCM.
• Staff are able to articulate and share their own LTP strategies
• CCM staff members actively participate in LEGO’s Community of Practice.
Interim Findings re: Staff Training

- **Staff trainings best approached as brief 20-30 minute sessions** so info is digestible and embedded in daily routine of morning meetings.

- Create a **forum for dialogue** about the Learning Through Play opportunities that they see as well as **strategies** they employ to enhance LTP.

- **Document and display staff's reflections.**

- **Provide a way for staff to continue the conversation,** such as through "talkback boards"
Interim Findings: Staff Training

• Staff reflections have articulated knowledge of Learning Through Play connections and shared strategies for supporting learning Through Play.

"Find an area where you feel comfortable or interested and start doing something! For example, sit by the blocks and start building. If children show interest in what you’re doing, invite them to join you."

"Engage in dialogue that deepens the scenarios that are being played out by children. For instance, join the riders on the [play] bus and ask them: “What is your stop? Where are you going today?”
Interim Findings: Mentor Training and Outcomes for Children

- Matching our initiative's goals with the partner's goals for children's development has been critical.
- 100% of mentors were able to articulate ways that particular museum experiences support their mentees' learning goals through play.

“The Tinkering Lab will get [my youth] used to working and playing with others.”

“My mentees are full of energy, so being able to crawl and climb will promote health and learning.”

“The Climbing Schooner will allow youth to become aware of their capabilities.”

“One of my youths love to solve problems. [Tinkering Lab] will allow her to explore different solutions from an engineering perspective and expand her creativity and imagination.”

“The Castle exhibit encourages youth to engage in storytelling and role-playing—they will interact with their peers.”
Interim findings: Mentor Training

- Asking Mentors to share reflections on how they have been supporting their children's Learning Through Play has revealed concrete strategies and behaviors.

  "Encouraging [my mentees] to use their 5 senses and imagination."

  “Making a plan with [my mentee’s] input.”

  “Incorporating sharing and taking turns” to build social growth.

  Encouraging “perseverance,” especially through the Cloudbuster climbing experience.

  "Engaging in “problem solving” together, especially in the Dinosaur Expedition exhibit."
Interim Findings: Mentor Training and Staff Knowledge

- Mentors/caregivers notice and appreciate when staff are skilled in articulating Learning Through Play.

“I love how the staff were exploring the exhibits. It really shows that they understand that the museum is more than a place to play. It's a place where learning and playing happen.”

"I found most useful: learning more about each exhibit [from staff] and practical ways to engage our youth in learning through play."

"I have enjoyed watching my youth focus on playing while learning. The Children's Museum makes it easier to live out the Friends of the Children program model of teaching while playing.”

"I found most useful: the way [CCM Staff] connected Friends of the Children core assets to each exhibit.”
CCM has begun to better **codify the Learning Through Play connections that are possible** in each of our exhibit spaces.

- **One-page 'Learning Through Play' overviews** of our exhibits
- **Bi-monthly “tours” of our museum**, open to all staff and board members to gain deeper understanding of the Learning Through Play connections and equip them to **articulate and advocate** for the importance of learning through play.
More to Come! What's Next?

• Ongoing museum visits
• Ongoing LTP Trainings for Staff and Mentors
• Family Events
• LTP Kit Distribution, timed with Summer Break
• Further surveying and reflective practice to collect data on outcomes
• Ongoing participation in the LPLMN--Community of Practice to share learnings
Building a Community of Playful Learners (one brick at a time!)