



## “Playful Interactives”

Evolution of the Arts in a Digital World Symposium - Session No. 3 Notes

January 20, 2021

### THE IMPORTANCE OF PLAY

- Play is learning.
- History of Children’s Museums:
  - [Brooklyn Children’s Museum](#) - free admission with a focus on natural sciences.
  - [Boston Children’s Museum](#) - built by Boston’s science teachers’ group. Purpose is to allow children to observe accurately and think logically.
  - [Detroit Children’s Museum](#) - support the school system - exhibits could be tailored towards the subject teachers requested.
  - [Children’s Museum of Indianapolis](#) - displays on tables for children to explore.
- Women played a significant leadership role in creating and maintaining Children’s Museums.
- Content is linked to the school curriculum.
- Hands-on learning plays a key role.
- Teacher-run organizations assisted in creating exhibits for Children’s Museums.
- Institutional collaboration with schools and curriculum was a large focus.

### What is play?

- Play is what children and young people do when they follow their own ideas and interests in their own way and for their own reasons. Though play, children interact with the world around them.
- Play is protected by the UN [Convention on the Rights of the Child](#).
- Play is learning.
- Play increases self-awareness, self-esteem, and self-respect.
- Structured vs. unstructured play is an important distinction.

### 16 Types of Play:

1. **Symbolic Play** - using objects to represent other things (like a banana for a phone).
2. **Rough and Tumble Play** - Physical vigorous behaviours (play fighting).
3. **Socio-Dramatic Play** - acting out experiences or events from everyday life (playing grocery shopping).
4. **Creative Play** - using materials and tools to demonstrate ideas artistically.
5. **Social Play** - play that involves interacting with others.
6. **Communication Play** - using words, telling jokes, word play.
7. **Dramatic Play** - Acting out roles or events the child has not experienced (like being a rock star).
8. **Locomotor Play** - movement for movement’s sake (running, jumping, skipping).
9. **Imaginative Play** - play based on reality but not real (pretending to be a lion).



10. **Exploratory Play** - playing with the senses (touch, smell, taste).
  11. **Fantasy Play** - acting out things that are unlikely to occur (being a superhero).
  12. **Deep Play** - Conquering fears.
  13. **Mastery Play** - taking control of the physical world (like digging a hole).
  14. **Object Play** - hand-eye manipulation.
  15. **Role Play** - exploring ways of being (pretending to be a teacher).
  16. **Recapitulative Play** - exploring history, rituals, or people from the past.
- Which type of play works best for your organization?
  - Through play, children can control their world and act out different types of solutions.
  - We can group these different types of play together. Your organization can use as many or as few of these different types of play as would fit within the space you are designing.

## 12 Stages of Play:

1. **Unoccupied Play** - play appears scattered, with random movements; exploring the world with no organization.
2. **Solitary Play** - the child entertains themselves without any other social involvement.
3. **Onlooker Play** - watching others play, but not joining in.
4. **Parallel Play** - playing next to each other, but not interacting.
5. **Associative** - children begin to be interested in the other players. Begin practicing social skills.
6. **Cooperative** - children adopt group goals and establish rules of play. This type of play can involve a lot of conflict.
7. **Fantasy Play** - imagining and thinking beyond their world.
8. **Constructive Play** - building and creating. Supports visual-spatial fine motor and math skills.
9. **Expressive Play** - expressing feelings through art.
10. **Physical Play** - working with the whole body to build muscle and coordination.
11. **Competitive Play** - exploring fairness, rules and taking turns.
12. **Digital Play** - involves electronic or computer-based learning.
  - Corresponds to the development level of children.
  - Also applies to families visiting the exhibits (Parallel).
  - Need collaborative and independent play in your exhibits.

## Risky Play

- Visitors come to your space for experiences.
- Risky play includes:
  - Play at heights;
  - Play at different speeds;
  - Rough and tumble play;
  - Play where children can disappear;
  - Play with dangerous tools;
  - Play near dangerous elements.



- Ex. A young child learning how to cut glass. The child's back is to the action, so they can focus on the activity.
- Ex. [A](#) young child drawing on a heat pad that is warm enough to melt the crayon but not hot enough to hurt them.

Ex. Forest Schooled

- Mapped their area with all 16 kinds of play.

## Play and Brain Development

- [Dr. Dan Siegel](#)
- Upstairs brain - sophisticated and analytical
- Downstairs brain - primitive. Stress and fear are what engages a child's downstairs brain. Play can help move a child upstairs.
- Some stress is good because kids can grow and learn to overcome it.
- In a museum, you want to lower a child's stress level.
- Take care of their emotional needs in your space.
  - Example: [YouTube Video](#) of a dad and his crying daughter. He tells her to stop, and that it is his turn to cry. He cries for a bit, then stops, and tells her it is now her turn. The dad recognized that his daughter was having an emotional moment but was able to engage her 'upstairs brain' when he told her to stop and that it was his turn.

## THE INSTITUTION

Is your institution ready to play?

Revisit your mission and vision. Does your mission statement reflect on the institution's current thinking?

Example Mission: [Ghibli Museum](#)

- A letter of commitment written by Hayao Miyazaki that declares all the things the museum will have and provide.

Example Mission: [Meow Wolf](#)

- Believes in the power of creativity to change the world.

Example Mission: [Exploratorium](#)

- "World where people think for themselves."

**Only 57% of children museums use 'play' in their mission statement. Why are we avoiding the word?**



## THE VISITOR

Define your visitors. Who are they?

1. **Explorer:** a visitor who likes to experience and learn something new.
2. **Experience Seeker:** the tourist who wants to see an iconic place or item, checking off the “been there, done that” experience.
3. **Facilitator:** the person who is there to benefit another person’s experience.
4. **Professional/Hobbyist:** someone who has a great knowledge of a topic and wants to see what the museum has or knows.
5. **Recharger:** someone seeking a place of beauty of quiet, or inspiration to refresh personal life, often in a relaxing manner and generally not linked to information gain (not typical in children museums).

### Visitor Motivation

- They come for an experience.
- Their learning in your space is voluntary.
- Learning will only take place when cognitive and emotional needs are met.
- If play is learning, they will only play if play is fun.

### Scaffold learning

- Caregivers are a child’s first teacher.
- Adult engagement is critical to the child’s development.
- Making learning visible is necessary.
- Children learn better if their adult is willing to make connections for that child.
- Some museums do not have social seating spaces for parents. Evelyn disagrees with this. If the exhibit/space is well designed, it will automatically invite people towards it. Include social seating! Adults could be looking to use this space for socialization.
- Children are strong, resourceful, capable learners and participating citizens.
- Mighty learner - a mighty learner brings body and mind to play and learning.
- Children are full of potential. If they can climb on something, they will. If there is an open space, they will run. If a space echoes, they will test that.

Play is inclusive: we all take turns. Play includes a social contract where children are fully recognized rights holders who are entitled to receive protection and have the right to participate in matters affecting them.

### Content

- How can you honour your passion for the content as well as the needs and wishes of the visitors?
- Who is this exhibit for? We design exhibits in service of our visitors.



## Exhibit design is:

- Problem-solving;
- Sparking curiosity and wonder;
- Education in an informal environment;
- Communication in many forms;
- Collaboration;
- Participation;
- **Attentive to the visitor's needs.**

## The Power of Place

- People come to your space for an experience.
- Transform the space (to create deeper meaning).
- Think about your smallest visitors. Children need transition spaces to help focus their attention and prime their brains for new experiences.
- Types of spaces for rest and for meeting need to exist too.

## Family-Friendly Exhibits

- Multi-Outcome interactives - give visitors the space to play and interact. They also allow organizations to document the learning outcomes and number of interactions with that exhibits.
- All spaces outside of exhibits contribute to the experience as well.
  - Ex. In the bathroom, having lower sinks or stools for children encourage a child to be independent.
  - Ex. the Cafe is a space with a lot of stress when it should be a space for talking about our experiences.

## PROTOTYPING

- Choose an object that you want to understand more about.
- Use a non-precious material to prototype (cardboard, recyclables). Make corrections. Visitors are more comfortable playing with something homemade, and are more likely to give you feedback.

## Brainstorming

- Ideas are communal - once it is put out there, it is no longer just your idea.
- Always give yourself permission to think about one impossible idea.

## Prototyping examples

- Example: Beaver Dams - instead of water, used light



- Example: Skulls and mirrors on the table. No instructions were provided, and kids started looking and playing by themselves.
- Example: Dig Pits - Tested different mediums for kids to dig through, such as paper, fake grass, rubber pellets, corn, fake flowers, and petals
- Example: Mountain Goats exhibit - kids testing out their balance on the rocks. It did not work as intended because the kids would use the circles for a different game.
- Example: Coyote jump - can you jump as high as a coyote? Parents started lifting their kids up.
- Example: Making spider webs - artistic and collaborative activity
- Example: Describe an object. One child picks up an objective and they have to describe it to their partner who cannot see the item. The goal is to describe the object in a way that will get their partner to pick it out of their set of objects. Engagement time with the exhibit went up to forty-five minutes versus the thirty seconds of engagement when the objects were just displayed on a table for kids to look at.
- Example: Grouse Mating Dance - Tested two ways to engage kids. In the first, kids were given a paper tail and asked if they could replicate the dance in the video. In the second, the kids were still given a paper tail and asked to follow the footsteps on the floor.
- Ask children what they would like to see in the museum using Wish Trees or a giant idea wall.

A children's museum is never ever finished. Need to change something every 3-5 years.

## DESIGN CHALLENGES (see YouTube Video of Presentation for Exhibits)

### Exhibit One: Group Solution:

- Extend the landing area so the objects went further.
- Use chalkboards for the landing area so kids can mark how far they went.
- All the objects that ended up in the catchment area would be automatically be returned to the top using a 'ball return-type' mechanism.

### Exhibit One: Evelyn's Solution:

- Extend out the landing area.
- Landing area included flaps that would allow kids to make bumps in the track.

### Exhibit Two: Group Solution:

- Structural Design - soundproofing in the wall or in the cave. Could use foam or egg cartons on the roof of the cave to soundproof and recreate stalagmites.
- Environment Design - change the design of the space to prevent so much running.
- Environment Design - put sounds in the cave to get kids to listen instead of making their own noises.
- Activity Design - a quiet activity so that children will not distribute the animal in the cave.

### Exhibit Two: Evelyn's Solution:

- Took away the slide so kids would not think it was a playground.





- Added texture poles to show different tracks that could be found in the area and as well as the natural plant life.
- Whenever there was a classroom in session, a drop-in program would be hosted in the cave play-area.

### Exhibit Three: Group Solution:

- Did not want to limit the risky play but wanted to make it safer. Add more soft surfaces around the netting, which would allow kids to still climb, but lessen the risk.
- Add a chill out zone with cushions.
- Soundscape to bring down energy.
- Offering programming.
- Turning the structure so that the hidden spaces were more visible for parents to monitor.

### Exhibit Three: Evelyn's Solution:

- Impossible to move because the structure is massive and built into the wall.
- Added motion sensors to trigger lights and utilized a soundscape. Decreased energy level of kids significantly.

### Exhibit Four: Group Solution:

- Assumptions: there is something behind the portals that everyone is supposed to look at and that the tables were put there for storage
- Remove the tables from that space. Put colourful benches in instead.
- Put images/colour/symbols on the floor to draw people to that space.
- Include tablets or electronics on the wall.
- Colour on the opposite wall.

### Exhibit Four: Evelyn's Solution:

- The portals on the wall show the room with the computer area.
- Commissioned a local artist to create a mural to tell the story of Canada from East to West, going from morning to night and from summer to winter.
- People now line up here to pick up their holds at the library.
- Staff created an interactive scavenger hunt for kids to engage with the mural.

## QUESTIONS

**How do you anticipate COVID will influence or change your approach to these spaces as we move forward? Are the changes temporary in your mind?**

- Evelyn is worried about the impact COVID will have on these spaces.
- The skin is your largest organ. It is important for children to touch.



- Currently, the most you can do is limit the number of people within an exhibit. You must disinfect between groups.

**What does your curatorial process look like? For instance, do you include universal design; have protocols for including cultural influences, etc.?**

- Lots of collaboration.
- Must find out about the community's needs by working with experts and people who are advocates for kids with special needs.
- Communicate and work with a large and diverse team.
  - Example: Wheelchair accessible tables. It turns out that all wheelchairs are of different heights so how do you change that table to work for many people? Test with a lot of different groups.
  - Ask the players, what game do they want to play?
  - Example. Telus Spark's children area. English is the main language, but Tagalog is the second most spoken language in Calgary. Evelyn ended up using minimal text in the exhibit, but she did have to consider what languages to include.

Event notes for the "Playful Interactives" session © 2021 by Michelle Luong