

DCM Exhibitions – Staff Training Materials

Your Role in the Big Picture: Essential Information for Education Floor Staff

Museum-Wide Messages

While each exhibition has specific content to communicate, there are many opportunities for Floor Staff to connect all the exhibitions through the expression of “Museum-Wide Messages.” Staff has an important role to play in communicating these messages through their interactions with Museum visitors.

1. Choices & Outcomes

“Choices & Outcomes” is a naturally occurring theme that runs through several exhibitions – *Patents Pending*, *Water World*, *It’s Your Choice*, *Young at Art*, etc. Considering what happens as a result of one’s action – be it manipulating water in *Water World*, balancing caloric intake in *It’s Your Choice*, or choosing cloth over plastic bags in the *Eco City Market* – is a consistent feature of the way we want visitors to be engaged. Choices and outcomes, cause and effect, action and reaction – there are a number of ways to describe this type of learning experience.

2. Learning occurs through experimentation & making connections to the “real world”

Children are asked to experiment and solve problems in many of the exhibition areas. Applying thinking skills is at the heart of investigation. Children need to be encouraged to take risks and try new ideas, and they should be rewarded for such behavior. There should be positive reinforcement for undertaking investigation that is open-ended. In a society that rewards success and getting the right answer, these are not necessarily natural behaviors. In addition, the Museum focuses on supporting connections between exhibition activities and “real-world” settings and situations so that the process of experimentation can be applied to “real-life” contexts.

Feedback

An important part of experimenting is being able to get feedback at each stage to help *guide decisions about what to try next and why*. In galleries where open-ended and imaginative play are the core activities, a natural feedback process is built into the fun of trying things out. However, many of the exhibits have components of trial and error and experimentation that require feedback. This feedback can be provided by Museum staff as they interact with visitors.

3. Play is a Child’s Way of Learning

This Museum-Wide Message is for adults: *play is a child’s way of learning*. In an over-structured society, it is important for adults to understand a child’s need for open-ended and imaginative play. Museum staff can support this by pointing out visible indicators to parents or caregivers that their child is absorbed in a learning activity and by modeling techniques that parents or caregivers can use to interact with children in ways that support discovery and learning.

Visitor “Bill of Rights”

Comfort	<p>“Meet my basic needs.”</p> <p><i>Visitors need fast, easy, obvious access to clean, safe, barrier-free restrooms, water fountains, baby-changing tables, etc.</i></p>
Orientation	<p>“Make it easy for me to find my way around.”</p> <p><i>Visitors need to make sense of their surroundings.</i></p>
Welcome/Belonging	<p>“Make me feel welcome.”</p> <p><i>Friendly, helpful staff ease visitors’ anxieties.</i></p>
Enjoyment	<p>“I want to have fun!”</p> <p><i>Visitors want to have a good time, with a minimum of frustration.</i></p>
Socializing	<p>“I came to spend time with my family and friends.”</p> <p><i>Visitors expect to talk, interact and share the experience. Exhibits and programs set the stage for this and staff facilitate.</i></p>
Respect	<p>“Accept me for who I am and what I know.”</p> <p><i>Visitors want to be accepted at their own level of knowledge and interest.</i></p>
Communication	<p>“Help me understand, and let me talk too.”</p> <p><i>Visitors need accurate, honest and clear communication from staff. They want to ask questions and hear and express different points of view.</i></p>
Learning	<p>“I want to learn something new.”</p> <p><i>Visitors come to learn something new, but they learn in different ways.</i></p>
Choice and Control	<p>“Let me choose, give me some control.”</p> <p><i>Visitors need the freedom to choose and follow interests, and explore in developmentally appropriate ways.</i></p>
Challenge and Confidence	<p>“Give me a challenge I know I can handle.”</p> <p><i>Visitors want to succeed. Providing a wide variety of experiences matches a wide variety of skills.</i></p>
Revitalization	<p>“Help me leave refreshed, restored.”</p> <p><i>Help visitors to enjoy themselves, and the experience of being at the Museum with their family and friends.</i></p>

DCM STAR Model/Standard of Customer Service

Smile: Greet all visitors with a smile.

Teach: Teach valuable and relevant information.

Acknowledge/Act: Acknowledge visitors' needs and expectations, and act on them.

Return: Return to visitors during their visit to ensure that their experience is dynamic.

Non-Negotiables

DCM Staff Identified the following as things as absolutely necessary:

Respect

Attentiveness

Punctuality

Reliability

Positive Body Language

Enthusiasm

Engagement

Professional Appearance

Personal Hygiene

DCM Supports a Culture of Questioning

Importance of Questioning

A culture that encourages questioning does many great things for an organization:

- It helps the organization define its mission and vision.
- It keeps the organization focused.
- It allows creativity to flow, innovative ideas to be presented as opportunities, and routines to be questioned and improved.
- It creates a climate that encourages adaptability, flexibility, and creativity.
- It helps identify and solve problems, question assumptions, look for interdependencies, and examine different points of view.

Characteristics of a Questioning Culture

The leaders and people in the organization:

- Are willing to admit when they don't know.
- Encourage questioning.
- Develop the skills to ask questions in a positive manner.
- Focus on empowering questions and avoid disempowering ones.
- Emphasize the process of questioning and not just finding the "right answer."
- Accept risk taking and reward it, even when it doesn't work.

Source: <http://thesimonscenter.org/wp-content/uploads/2016/12/IAJ-7-3-Fall2016-pg28-37.pdf>

Techniques for Visitor Engagement

Engaging the Museum's Audience & Facilitating Family Learning

A. 10 Techniques to Use in Exhibits

Observe first. Watch. Wait. Act. Are they already having a great interaction? What's needed?

Make yourself accessible. Your welcoming smile and eye contact make a difference. How do we let visitors know it's OK to approach us?

Offer comfort. Point out things like stools, chairs, or smocks. How can we make playing, or observing play, comfortable for everyone in the family?

Clarify exhibit resources. Help visitors see what's available. Do both adults and children know what to do? Does the family know if there's a little learner option at the exhibit or if there are other resources they should be aware of?

Share extra props and resources. Offer something extra. Would they like to try a new tool? Bring out a kit or drop-in activity. *Would you like to try this?*

Appreciate visitors' actions. Being noticed means a lot. *That's quite a building you built together. Very impressive teamwork!*

Empower adults. Provide information or skills that enable the caregiver to assist their child. *You put the washer on, then the nut, like this... or... There are footholds your child can use to climb up.*

Model mentoring/scaffolding strategies.

- Narrate. Describe exactly what a young child is doing without comment or judgment.
- Ask questions that invite discussion. *Tell me about what you made.*
- Challenge visitors to solve problems or to push a little further.

Engage whole families in friendly conversation. Starter: *Is this your first time at the Museum?* Strategy: Listen.

Help caregivers through a challenge.

- Tantrums – How do we support caregivers so they can see it through? Is there a quiet spot they can sit together for a few minutes?
- Sharing – How do we provide opportunities for children to practice sharing? Can they share tools while they work cooperatively to accomplish a task?
- Leaving – How do we model preparing children for transitions? Can you help a child finish what they're doing so they can feel ready to move on?

Source: *Techniques for Respecting, Supporting and Engaging Families in Learning Together – Families in Museums – Staff Training Curriculum* (Boston Children’s Museum and Chicago Children’s Museum, 2012)

B. Tips for Engaging the Public

Be seen and look inviting: Use positive body language to attract and welcome visitors. Pick a visible location, stand up tall, and orient your body in an open stance towards the visitors. Look approachable by smiling and moving towards the visitors when appropriate, such as stepping out from behind a car or table. Use expressive arm gestures, facial expressions, and vocal tones. Convey excitement about the topic.

Sit close to a family and work in parallel. A conversation can easily start about what you and the visitors are doing.

Listen to conversations and see if there is a way you can improve an experience.

Make eye contact: Initiate conversations with eye contact. Make eye contact while teaching. If new visitors join mid-dialogue, acknowledge them with a smile and eye contact and incorporate them into the conversation. This will make everyone feel included in the group and encourage a more personal interaction.

Use openings and greetings: Welcome visitors and greet them with creative opening lines or a friendly gesture. Visually acknowledging and verbally engaging visitors establishes rapport and encourages interest in your topic and further engagement. Remember the 10/5 rule: acknowledge visitors with a smile, friendly gesture or open body language at 10 feet, and make contact or greet visitors at 5 feet.

Engage audience curiosity: Ask age-appropriate, open-ended, and playful questions to begin a conversation. Open-ended questions launch conversation and make space for dialogue that is audience-driven and applicable. With younger visitors, try to engage as many senses as possible. For example: “What does bone feel like?” “Why do you think this fish is orange?”

Give visitors a challenge to complete in the exhibit.

Use objects: Use objects to help illustrate and engage visitors, especially with complicated topics. Engagement aids can also be used to model what cannot be seen in the exhibit. Prior to inviting visitors to touch objects, explain how to properly and safely handle them (if appropriate).

Replenish materials or introduce new materials, or use materials in a different way.

Project your voice: Direct your voice towards the visitors. Project your voice so the entire group can hear you. Speak loudly enough to be heard over nearby noise, but not so loudly that you disrupt other people. Move closer to the audience as needed. Remember to breathe and pause between sentences to allow the visitors to process what you are saying. To increase engagement, speak loudly enough to capture the attention and interest of visitors passing by.

Modulate your voice: Vary the tone, speed, and volume of your speech. Be louder when excited or whisper for effect. Speak clearly, confidently, and enunciate. Be conscious of audience size. Your tone and volume encourages visitors to feel welcome, interested and engaged.

Include children: Focus your presentation on the youngest member of your audience. Physically lower yourself to their eye level, speak directly to them, and offer artifacts for them to touch. Ask simple questions, show pictures, and encourage participation in an activity. Often, children listen to youth educators more readily than they listen to adults, as teens are closer to their ages and can be less intimidating. Including children in your presentation helps to build family engagement, invites participation, establishes trust, and builds connection.

Use appropriate and approachable language: Know your audience and choose appropriate language. When engaging younger visitors, use common language rather than technical terms. For instance, say “Tigers do most of their hunting at night, usually eating alone in a quiet spot” instead of “Tigers are solitary, nocturnal predators.” If you use advanced vocabulary with older visitors, be sure to explain what it means.

Handle rejection gracefully: Rejection is a normal aspect of working in a museum with visitors. Understand that not all visitors are interested in engaging with you, and the reasons vary widely. Try not to be discouraged. Instead, use it as an opportunity to build self-confidence and resilience. Remember not to take it personally and always maintain a professional attitude.

Discover and utilize your own passions: Follow your own intellectual curiosity and integrate that into your teaching. If you find a particular subject interesting, the visitor will know, and the caliber of the engagement will be raised.

Be intentional about closing statements: Think of ways to end your dialogue smoothly and avoid awkwardness. A positive closing remark allows a smooth transition into a new conversation. For example, “Enjoy the rest of your visit,” or “It was great talking with you,” are all warm and effective ways to end an interaction with a visitor. You can also direct them to other areas of the Museum where they may continue pursuing something they are interested in.

Source: California Academy of Sciences, New York Hall of Science

Play Tendencies & Learning Tendencies

Skilled staff facilitation supports play & family learning.

Characteristics of Play:

- Spontaneity
- Active engagement in activity
- Absorption in task
- Intrinsic motivation
- Being free of consequences

Adult Behaviors Indicating Facilitation of Play:

- Positive engagement (suggesting play scenarios, complimenting choices)
- Allowing child to lead activity
- Following child's interests

Characteristics of Learning:

- Causing something to happen by accident and trying to recreate the effect
- Imitating another's behavior, generally an older, more experienced person
- Assimilating a new idea (using existing understanding to make sense of something new)
- Accommodation of a new idea (changing understanding of the world to make sense of something new)
- Mastery of task (through independent trial and error, or by participation, guided by adult)
- Applying prior knowledge to current situation
- Making connections between disparate ideas (such as realizing this new toy at preschool can be operated just like the one at home, even though it's a different toy)
- Using a strategy to remember something (such as, if counting the total number of cookies, *I remember that we always get two cookies to start with...so rather than counting one, two, I'll just start with three...*)
- Thinking about own thinking — metacognition (i.e., *I know that I have trouble with addition, so I'll ask my older brother to help me with this, so I can get on to the next thing...*)
- Repeating a word or phrase spontaneously
- Using a new word or phrase in appropriate context
- Asking questions
- Retelling in own words

Adult Behaviors Indicating Facilitation of Learning:

- Modeling how exhibit components are to be used, how to interact, how to explore ideas in exhibit
- Introducing the exhibit and helping describe the tasks/components of the exhibit (*Oh, here, we're going to build a boat.*)
- Offering non-specific instructions and questioning (*Think about what you are doing... You have plenty of time... Are you sure you want that to go there?*)
- Offering ideas to extend the child's thinking (*What if you put that piece there instead? What do you think would happen?*)
- Offering motivational praise and feedback (*You are doing well! I like how you are choosing your colors... or Look how much you have already done!*)

Source: "Play Tendencies" and "Learning Tendencies" in *Standards of Excellence in Early Learning: A Model for Chicago Children's Museum* (Chicago Children's Museum, 2005)

Types of Play

Communication Play - Play using words, nuances or gestures to emphasize a message. Examples include miming, charades, telling jokes, singing, and debating.

Creative Play – Play which allows construction and creation, and allows children to design, explore, try out new ideas and use their imagination. This type of play includes different tools, props and equipment, and self-expression through any medium.

Deep Play – Play that allows children to participate in risky experiences that may confront fears. Examples include climbing up high, balancing, and swinging on swings and jumping off.

Dramatic Play – Play that dramatizes events in which the child is not a direct participant (recreating scenes from the lives of others: television, theater). This type of play may include dance routines and impersonations.

Exploratory Play – Engaging with an object or area by manipulation or movement, such as handling, throwing, banging or mouthing, and assessing its properties.

Fantasy Play – Play that rearranges the world in a way that is unlikely to occur. Examples include pretending to be a dragon or a superhero, driving a car, casting magic spells, or pretending to be six feet or six inches tall.

Imaginative Play – Play where conventional rules do not apply. Examples include pretending to be a tree or a ship, or patting an imaginary dog.

Role Play – Exploring other ways of being and trying out different identities. Examples include pretending to drive a bus, being a police officer and playing teacher, just to see what it feels like.

Rough and Tumble Play – Play fighting that involves body contact without injury. This type of play involves a great deal of energy. Examples include wrestling, chasing and Kung Fu fighting.

Social Play – Playing games with the expectation that participants will follow rules. Examples include group play with agreed boundaries, such as tag and hide-and-go-seek.

Socio-dramatic Play – Recreating scenes from home, school, and church. This type of play may involve nurturing, discipline, anger and conflict, frustration and aggression, and forgiveness. Examples include playing house and going shopping.

Symbolic Play – Play that involves exploration through symbols. Examples include pretending that a stick becomes a horse, or using a piece of wood as a sword.

Locomotor Play – Movement in any and every direction. Examples include swinging, climbing, jumping and skipping.

Mastery Play – Repetitive play that enables a sense of control over the environment. Examples include reading the same book repeatedly, construction and demolition, changing the course of streams, and stopping the flow of water.

Object Play – Playing with objects and exploring their uses and potential; using objects in other ways than the purpose they were designed for.

Recapitulative Play – Play that allows the child to explore human evolutionary history, and play that is stimulated by aspects of the outdoor environment. Examples include pretending to build fires and shelters; making mud pies, digging for treasure, collecting stones, playing war, gardening and cooking.

Source: Hughes, B. (2002) *A Playworker's Taxonomy of Play Types*, 2nd edition, London: Playlink

Indicators that a visitor is engaged and learning

- Visitors feel confident
- Visitors feel competent
- Visitors build skills and feel proud
- Visitors try something hard and feel challenged and supported
- Visitors feel like they can take their confidence outside the Museum
- Iteration: Visitors make several versions of things, each time using something that they learned from their previous try in an attempt to get better or solve the problem in a different way.
- Divergent solutions: Visitors come up with a variety of designs/options to meet a challenge
- Visitors ask for other materials
- Visitors collaborate with strangers
- Visitors explain their solution to someone else
- Visitors set their own goals
- Visitors ask questions
- Visitors use given materials in a new or unexpected way
- Visitors express enthusiasm and pride in their work

Source: New York Hall of Science

ABOUT DISCOVERY Children's Museum

DCM Mission

The mission of DISCOVERY Children's Museum is to provide a vibrant and engaging environment, through exhibits and programs, where children from economically and culturally diverse backgrounds actively participate in playful learning environments that ignite a love of lifelong learning.

DCM History

Formerly known as the Lied Discovery Children's Museum, more than 3.2 million children and families have visited DISCOVERY Children's Museum since it was founded in 1984 by the Junior League of Las Vegas and the Allied Arts Council of Southern Nevada. A state bond issue authorizing the building of the Las Vegas-Clark County Library and Discovery Museum gave the Museum its first permanent home in 1990. In 2013, DCM opened its new 58,000 square-foot, \$50 million building at the Donald W. Reynolds Discovery Center. Located in Symphony Park, a 61-acre mixed-use development in downtown Las Vegas, and within *The Smith Center for the Performing Arts*, DCM is a world-class cultural facility that is helping to redefine Las Vegas as a city that values culture and the arts, an urban lifestyle and, most importantly, its children. The Museum houses nine themed exhibition galleries plus a traveling exhibition hall, featuring 26,000 square feet of interactive exhibits, and more than 100 interactive components that engage visitors with the arts, sciences and humanities. DCM serves over 250,000 visitors annually.