



CULTURAL CONNECTIONS

Program Notes

Program Title: Discovering Discovery Rooms
Location: Chabot Space & Science Center
Date: Tuesday, February 12, 2002

Presenters:

Name: Judy White

Name: Jennifer (Dursi) Rothman
Title: Education Director, Palo Alto Junior Museum and Zoo

History of Discovery Rooms, presented by Judy White

In the beginning, there was Carol Marsh, at the Smithsonian Museum of Natural History (SMNH) in Washington, D.C. Carol got funding from the National Science Foundations (NSF) to experiment with ways to give SMNH's visitors hands-on experiences with their collections.

In the beginning, there was also Judy White, who came down to Washington from The Children's Museum in Boston and attacked the problem.

Some of the challenges:

- Where to get the "stuff"? Curators didn't want visitors handling objects, because they feared visitors would not treat them with respect. Judy begged bits and pieces from various departments.
- How to keep "stuff" from walking off? Judy put the "stuff" in small boxes with individual compartments, so it was easy to see if something was missing. When boxes were checked in and out, it was easy for the staff to do a visual inventory.
- What stuff to put in which box? Judy talked to the curators about the stories behind the stuff, and organized objects around engaging stories.

The NSF funding had not specified any particular target audience, so they waited to see who it worked for best. The answer was family groups (NOT school groups).

Further variations and their challenges:

- Next, Judy went to the National Zoo and worked on Zoo Lab. How can you give visitors hands-on experiences with a living collection? You can't. So they created discovery boxes themed around parts of animals or their behaviors, e.g. teeth, bones, feeding.
- Then there were Bird Lab, and Herp Lab. Herp Lab had a new challenge, because they specified to NSF which concepts they were going to teach, and to whom (families). Here they developed a way to give families "nose to nose" experiences with reptiles and amphibians, in small plastic boxes with a mirror in the bottom (animals were only in the boxes for short periods of time).

What did they learn?

- 1) Audience: Best audience seemed to be families—a mixture of adults and kids, working together. The best activities let either an adult or a kid "lead" the discoveries. School groups did not work well, because kids couldn't all use the same box at once. Little kids (<4) were also tough, because they are "discovering" different things, like motor skills, sorting, etc. and wanted to put everything in their mouths.
- 2) Subject matter: The extremes seemed to work best—either broad or deep. For example, a sample of very diverse examples of one thing (many kinds of lizards) or an in-depth exploration of one specific thing (one lizard skeleton).
- 3) Kinds of materials that work: The Discovery Room idea seems better suited to a museum whose collection has objects in it, like rocks, bones, things. Teaching concepts like space and stars, with which visitors can't have "sample experiences", would be really difficult.
- 4) Keep your expectations realistic: What do you really want visitors to get out of their experience? To enjoy themselves, to want to come back, to learn something in particular? When you're starting out, you need to verbalize that, then create a structure for people to realize those goals. Let visitors make discoveries, not just pick up a pile of bones.
- 5) Design of the space: Minimize visual clutter, maximize meaningful encounters with objects.

Current Practices, presented by Jen (Dursi) Rothman

Jen has done a literature review, a survey, and site visits with many Discovery Rooms around the U.S. Major themes uncovered in her research included:

- Discovery Rooms are designed to fit with the mission of the museum. Many include activity boxes, "stumpers", costumes and puppet, and reading areas that reflect the themes of the museum's exhibits.
- Discovery Rooms are self-directed and self-paced experiences (by the visitors)
- Discovery Rooms encourage repeat visitation by changing themes or rotating Discovery Boxes with different themes. If the room is targeting school groups, these themes can be matched to State or local content teaching standards.
- The purpose of many Discovery Rooms is to encourage visitors to slow down, and look more closely at things they have seen elsewhere in the museum. Often design details reflect this goal, using music, carpet, and lighting to create a comfortable and relaxed atmosphere.

Struggles:

- Staffing: It's important to have enough staff, and for staff to welcome visitors, encourage them, and model the types of behavior expected in the Discovery Room.
- Cost of upkeep: it is important to use durable materials, to minimize replacement costs, or cheap materials that can be replaced often. "Hands on" means lots of wear and tear on boxes, Q&A cards, and other materials. Costumes and puppets need to be washed frequently, and will wear out!
- Overcrowding: Some Discovery Rooms use timed ticketing and time limits, and most schedule school groups only at specific times of day.

Recommendations (laundry list) for Discovery Room developers:

- Set aside staff time for maintenance
- Be open at consistent hours. Peak visitation for many is after lunch.
- Visit other Discovery Rooms, as well as school rooms and playgrounds, for ideas/
- Provide a contrast in tone to the rest of the museum. If your museum is noisy and fast-paced, provide a quiet place for families to rest and do things slowly. If the museum is hushed, give families an opportunity to make some noise and mess.
- Don't post too many rules. This turns people off.
- Don't display too much at once, it's hard to make a decision about what to look at.
- Use real objects.
- Provide both social (group) and individual activities.
- Make it clear what goes where, so visitors can clean up after themselves easily.
- Link to the museum's mission, and get buy-in from the institution's upper management.
- Use interns to develop new materials.
- Create a separate space for the Discovery Room (not out on the exhibit floor).

Activities:

The audience broke into three groups, and each spent time touring Chabot's exhibits and exploring the Discovery Room.

Handouts / Recommended Reading:

Bibliography from Jennifer Rothman

Danilov, Victor, "Discovery Rooms and Kidspaces: Museum Exhibits for Children,"
Science and Children, January 1986: 6-11.

Diamond, Judy, Anita Smith and Alan Bond, "California Academy of Sciences
Discovery Room," *Curator* 31, no. 3 (1988): 157-166.'

Eratutli, Matti and Cary Sneider, "The Experiences of Visitors in a Physics Discovery
Museum," *Science Education* 74, no. 4 (1990): 481-493.

Hands On: Setting Up a Discovery Room in Your Museum or School. Toronto: Royal Ontario Museum, 1979.

Knodt, Jean Sausele, "A Think Tank Cultivates Kids," *Educational Leadership*, September 1997: 35-36.

Madden, Joan, "The Discovery Room," *Children Today*, September-October 1982: 7-11.

Pollock, Wendy, "Discovery Rooms: An Alternative Experience of the Museum," *ASTC Dimensions*, November/December 1999, <http://www.astc.org/pubs/dimensions/1999/nov-dec/discovery.htm>

The Journal of Museum Education, Volume 12, No. 2, Spring/Summer 1987. Focuses on discovery rooms.

White, Judith, Susan Nichols, et al. *Snakes, Snails and History Tails: Building discovery rooms and learning labs at the Smithsonian Institution.* Washington, DC: Smithsonian Institution, 1991.

Wold, Robert L., Ph. D., Mary Ellen Munley, and Barbara L. Tymitz, Ph.D. *The Pause that Refreshes: A Study of the Discovery Corners in the National Museum of History and Technology.* Smithsonian Institution. ED196772.

Some museums with Discovery Rooms:

Chabot Space and Science Center

Discovery Lab

<http://www.cosc.org/visit/programs/discovery.asp>

10000 Skyline Blvd.

Oakland, CA 94619

Blackhawk Museum

<http://www.blackhawkauto.org/>

3700 Blackhawk Plaza Circle

Danville, CA 94506

Children's Discovery Museum of San Jose

Early Childhood Center

<http://www.cdm.org/>

180 Woz Way

San Jose, CA 95110

Lawrence Hall of Science

Biology Discovery Lab

<http://www.lhs.berkeley.edu/Biolab>

American Museum of Natural History

Discovery Room

http://www.amnh.org/kids/disco_room/index.html

Oakland Zoo

Discovery Room

<http://www.oaklandzoo.org/>

9777 Golf Links Road

Oakland, CA 94605

California Academy of Sciences

<http://www.calacademy.org/>

55 Concourse Drive

Golden Gate Park

San Francisco, CA 94118

Ella Sharp Museum

Family Discovery Areas

<http://www.ellasharp.org/pages/discover.html>

Notes:

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You can contact Jen Rothman at the Palo Alto Junior Museum and Zoo: (650) 329-2412