

The Adult Child Interaction Inventory

A TOOL FOR EXHIBIT DEVELOPMENT AND EVALUATION

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**BOSTON
CHILDREN'S
MUSEUM**

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For more information, contact the Early Childhood Department at Boston Children's Museum

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Observation

DATE: EXHIBITION:

DATA COLLECTOR INITIALS:

OBSERVATION TIME BEGIN: OBSERVATION TIME END:

DYAD (*circle one*): Mother/son • Mother/daughter • Father/son • Father/daughter
Grandfather/grandson • Grandfather/granddaughter • Grandmother/grandson
Grandmother/granddaughter • Other (*please specify*):

GENDER AND AGE OF CHILD:

NARRATIVE ACCOUNT:



Observation

NARRATIVE ACCOUNT (*continued*):



A large rectangular area enclosed by a dashed yellow border, intended for writing a narrative account.

Interview

(OPTIONAL INTRO) “Hello, my name is . You may have noticed a sign as you entered the museum today telling you that research was being conducted in this exhibit. We are interested in looking at the ways parents (grandparents) and their young children interact and explore together at various exhibits. I have been observing you with your (grand) son/(grand) daughter in last few minutes here at the name of exhibit and I would like to talk with you about what the two of you were doing, if you don’t mind. It will only take a few minutes. I need to let you know that neither you nor your (grand) child will be identified in any way in this study, so I will not be asking for your signature, just your verbal consent to talk with me. May I ask you a few questions?”

INTRODUCTORY QUESTIONS

- 1) CONFIRM GENDER AND AGE OF CHILD:
- 2) RELATIONSHIP OF CAREGIVER TO CHILD: MO • FA • GM • GF • AU • UN
- 3) WITH WHICH OF THESE CATEGORIES DO YOU MOST STRONGLY IDENTIFY? (*Check all that apply*)

- White Black or African American Latino/Hispanic American Indian or Alaska Native
- Asian Indian Native Hawaiian Japanese Chinese Korean
- Filipino Vietnamese Samoan Other Pacific Islander
- Other Asian (*please specify*)
- Other Race (*please specify*)

OBSERVATION FOLLOW-UP QUESTIONS

- 4) “TELL ME WHAT **YOU WERE TRYING TO DO** AS YOU WERE WORKING WITH YOUR (GRAND) CHILD AT name of exhibit ?”
Probe: I noticed that you were (*refer to observation notes*).
- 5) “WHAT DO YOU THINK YOUR (GRAND) **CHILD WAS TRYING TO ACCOMPLISH** WHEN HE/SHE WAS (*refer to observation notes*)?”

OBSERVATION FOLLOW-UP QUESTIONS *(continued)*

- 6) “TELL ME WHAT **YOU WERE THINKING ABOUT** WHILE YOUR (GRAND) CHILD WAS
(refer to observation notes).”
Probe: *What was going through your mind? Were there any particular questions you thought about asking your (grand) child as they were exploring?*

- 7) “HOW WOULD YOU DESCRIBE THE **ROLE YOU PLAYED** IN HIS/HER EXPLORATION?”

- 8) IF YOU HAD TO EXPLAIN TO SOMEONE **HOW A CHILD OF HIS/HER AGE BEST LEARNS SCIENCE**,
WHAT WOULD YOU TELL THEM?

- 9) WHAT WAS IT ABOUT THE EXHIBIT THAT MADE IT EASY OR DIFFICULT FOR YOU TO SUPPORT
YOUR (GRAND) CHILD’S EXPERIENCE?
Potential responses: *Labels, text • Good sight lines, safe, clean • Seating • Comfortable, inviting/attractive,
compelling • Familiar • Clear goals, easy to figure out*

- 10) ARE THERE OTHER THINGS WE COULD DO TO MAKE YOUR EXPERIENCE AS A CAREGIVER BETTER?

“THANK YOU VERY MUCH FOR LETTING ME VISIT WITH YOU AND YOUR (GRAND) CHILD TODAY.”

Coding Interaction: ADULT ROLE

Looking back at your observation and interview notes, which of these roles did you see the adult demonstrating?
Please make a tally for each occurrence of the role for which you have an example in your notes.

1) PLAYER

Individually (*adult is playing independently*)

With child in child-initiated role

With child in adult-initiated role

2) FACILITATOR (*Non-verbal scaffolding and reinforcement through cues and prompts*)

Physically manipulates a part of the exhibit to cue the child to next step

Sets up or modifies environment to make it easier for the child

Models for the child how to accomplish a task or do an activity

Smiles at child or nods to reinforce that he or she is using the exhibit components in appropriate ways

Uses hand gesture to encourage child to persist and keep going

Moves physically closer to the child to let him or her know they are available, if needed

Lifts child up to make it easier to reach exhibit components

3) INTERPRETER (*Verbal scaffolding and reinforcement through cues and prompts*)

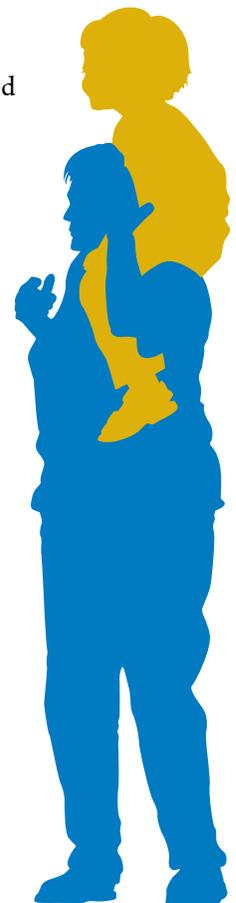
Gives praise or encouragement

Narrates the activity

Explains a concept

Gives verbal instructions

Asks or answers a question



CODING INTERACTION: ADULT ROLE *(continued)*

4) SUPERVISOR

- Maintains careful watch over child to secure his/her safety (close physical proximity, eyes on the child, looks around cautiously)
- Monitors child's interactions with others, intervening to solve conflict (especially regarding turn taking or sharing)
- Monitors and controls child's frustration
- Removes child from exhibit due to crowding or perceived safety concerns

5) STUDENT *(of the child)*

- Thoughtfully observes child at play
- Thinks about child's developmental needs and/or notes progress *(use interview data)*
- Talks to other adults about what child is doing *(ex: He loves this part; she always does it that way; he has trouble sharing; he likes to think up new ways of doing things.)*
- Plans for making connections or extending the experience after the visit *(use interview data)*

6) CO-LEARNER

- While playing with the child, the adult is reminded of concepts or skills he/she may have forgotten
- Works collaboratively with the child to solve a problem, relying in part on the child's own thinking to stimulate the adult's thinking
- Adult asks child for help to accomplish a task or to figure something out



Coding Interaction: SCIENCE PROCESS OBJECTIVES

Looking back at your observation and interview notes which of the following science behaviors did you see the adult initiating, supporting, or engaging in with the child? When possible, provide an example from your field notes.

- CATEGORIZING:** Grouping objects according to their different characteristics
- COLLABORATING:** Working in partnership with peers, older children or adults to investigate a phenomenon, accomplish a task, or investigate a question
- COMMUNICATING:** Sharing your ideas and discoveries with others
- COMPARING:** Using observation skills to notice and describe similarities and differences between objects
- COUNTING:** Using numbers to accurately count a group of objects
- DESCRIBING:** Explaining to others what you've learned or observed
- ESTIMATING:** Judging whether you have a LOT of something or a little
- EXPERIMENTING:** Engaging in simple investigations including making predictions, gathering and interpreting data, recognizing simple patterns and relationships, and drawing conclusions
- GENERALIZING:** Drawing conclusions and/or "making theories" about why something happened
- MEASURING:** Using informal systems of measurement to establish length, time, area, capacity, or weight
- OBSERVING:** Learning about the world around you by employing all the senses—*hearing, smelling, touching, seeing, and tasting*
- PREDICTING:** Using prior experience in thinking about what might happen if/next
- PROBLEM SOLVING:** Brainstorming solutions, trying them out and learning from your mistakes
- RECORDING:** Representing data, ideas, or experiences using multiple methods (*drawing, movement, words, etc.*)
- RELATING TO PRIOR AND/OR CURRENT EXPERIENCE:** Recalling past experiences and applying them in a new situation, applying new understanding and/or experience in different situations
- USING TOOLS:** Thoughtfully manipulating simple tools (*magnifiers, eyedroppers, etc.*) in order to extend your senses

Identifying Exhibit Design Elements

Indicate which of these design elements helped support the caregiver's interaction with their child (refer to Interview Question #9).

- WIDE VARIETY OF MATERIALS AVAILABLE
- EASY FOR ADULT TO FIGURE OUT
- EASY FOR CHILD TO FIGURE OUT
- OPEN SPACE WITH CLEAR SIGHT LINES
- CONTROLLED EXITS
- PLENTY OF MATERIALS AVAILABLE
- SEATING
- NOISE LEVEL/SOUND/ACOUSTICS
- LABELS: TEXT
- LABELS: PICTURES OR PHOTOGRAPHS
- INCLUDES TABLES AND CHAIRS DESIGNED TO ACCOMMODATE ADULTS
- PRESENCE OF MUSEUM STAFF
- OTHER

