Report to the Quality of Life Council

Making the Museum of Discovery and Science Accessible to All

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The Need

- Bright Horizons Center, a Broward County school for students with Autism Spectrum Disorders, has a partnership with the museum to provide community-based instructional experiences.
- The Museum has plans to build an addition after a successful capital campaign.
- The Museum starts a special needs advisory committee to discuss community needs for this population.
The Proposal is Created

• NSU Partners
  – Mailman Segal Center for Human Development-Susan Kabot
  – Programs for Speech-Language and Communication Disorders- Carol Zangari and two graduate students in the Masters Program in Speech-Language and Communication Disorders program
  – University of Miami-NSU Center for Autism and Related Disabilities, located at the Fischler School

• Community Partner
  – The Museum of Discovery and Science, Fort Lauderdale
The Statement of the Problem

• The Museum of Discovery and Science does not provide visual supports to accompany their exhibits to increase engagement of children with autism spectrum disorders and other developmental disabilities.
Florida EcoScapes Exhibit
Objectives of the Project

• Children with autism will have higher rates of engagement with the Florida EcoScapes exhibit after visual supports are provided.
• Children with autism will communicate more with others about their experiences at the museum through the provision of picture symbols.
• Children with autism will demonstrate lower frequencies of challenging behaviors at the museum through the provision of visual supports.
• Parents will report that their visit to the museum was more enjoyable through the provision of visual supports.
The Research Design

• Pretest-posttest control group design
• 20 Participants—randomly assigned to two groups
  – Ages 6-12 years of age
  – Must be nonverbal or minimally verbal
  – Experimental group 10 participants
  – Control group 10 participants
• Instruments
  – Interactive communication sample—A mean length of utterance (MLU) will be computed
  – ABC behavioral data—Taken if challenging behavior occurs, including tantrums, aggression, self-injury, high magnitude disruption
  – Engagement Quality Measurement System (E-Qual III)—Nine levels of engagement will be measured at 15 second intervals
  – Parent satisfaction—Questionnaire with structured and semi-structured responses
• Procedures
  – Recruitment of subjects—Denise’s List, Center for Autism and Related Disabilities
  – Screened for inclusion criteria
  – Consent obtained
  – Random assignment to experimental or control group
  – First visit to the museum videotaped
  – Second visit to the museum with either supports provided or no supports provided videotaped
  – Data transcribed from the videotapes
  – Data analysis
• **Intervention**
  – Visual supports provided to the experimental group on their second visit
    • Format is a bound book of visual supports/activities
  – Designed by the Speech-language program faculty; manufactured by speech language graduate students
    • Visual rules
    • Social Story
    • Communication boards
    • Activities using visual supports
Talking about Florida Ecoscapes Exhibit

- I see
- I like
- beautiful
- I don't like
- gross

rock  lobster  seaweed

fish  shells  turtle
Tips for communication, conversation, and conduct.

Take a look at these activities and the many other activities you see during your visit to the Ecoscapes Exhibit. Write it down. Draw a picture. Take a picture. Or use the visuals that are provided. This will let everyone have an idea of the plans for the day. It adds structure and organization to a fun day. You can also use this before you get to the museum to think about what you and your child will do once you get to the Ecoscapes Exhibit. Then, you can use this to discuss what you did after the visit. This provides opportunities for communication and conversation about an event in the past, present, and future.

Things to do at Ecoscapes.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
• Data Analysis
  – All visits are videotaped. Data will be taken from the videotape.
Current Status of the Project

• 8 Consents obtained
• Materials produced
• 6 First visits completed