

Evos™ Accessibility Research Results

Summary

Date of observation: April 28, 2009

Location: Eastwind Park, Brevard County Parks and Recreation, Viera, Florida

Sample Set: 15 – 20 boys and girls (50% each) representing a range of disabilities including mobility impairments, cognitive impairments, visual impairments, developmental delays and/or sensory integration disorders

Equipment: Evos (without Slalom Glider) playstructure and Evos components, Swings

Surfacing: Poured-in-Place

Research Team:

- Christi Filakosky, Teacher, Endeavor Elementary Magnet School
- Traci Harris, Teacher, Endeavor Elementary Magnet School
- Jeanette Beninger, Teacher, Endeavor Elementary Magnet School
- Mara Kaplan, Consultant, Play and Accessibility
- Jeff Caldwell, Rep Services
- Jim Gibson, Rep Services
- Tom Keller, LSI
- John McConkey, LSI

Key Conclusion: The Evos™ playsystem provides a wide range of sensory inputs and developmentally graduated challenges for children with a variety of cognitive disabilities and those with many types of physical disabilities. Components that significantly enhanced the play experience for this group of children included: Wobble Pod™ Bouncers, RingTangle™ Climber, Gyro Twister™ Spinner, Cyclor and Chatter Noodle™ Talk Tubes. The play experienced would have been more enriching with the addition of the Accessible Reach Panels and the Accessible Power Lifter Chinning Bar.

Background

Landscape Structures introduced Evos in 2007 in response to the growing childhood obesity crisis. Evos is designed to provide children a more physically challenging play experience than traditional post and platform play systems.

Evos meets the ADAAG standard when installed over an accessible safety surface due to the fact that all components are accessed at ground level. We've received feedback that Evos may not be usable by some children with disabilities, and therefore, should not be considered compliant.

First-hand observation and research will enable us to better understand how children with varying special needs play on Evos and also what limitations Evos presents.

Objectives

- Observe children with a diverse range of abilities and behaviors play on Evos
- Evaluate what activities children are participating in, what they naturally gravitate toward, and what they appear to enjoy
- Evaluate what activities children find too difficult or challenging, avoid, or choose not to participate in
- Observe how children with varied abilities play together on Evos

Methodology

Part 1: Free Play

- Approximately two hours with periodic breaks as necessary
- Allow the children to play together with as little assistance as necessary
- Video and still photography

Part 2: Round-table

- Evaluation and discussion with program directors and therapists

Observations from the team

Children with disabilities, like all children, approach something new with caution. At first they try what appears to present relatively low risk. Then, as they gain confidence, they move on to more challenging activities.

Children with disabilities, similar to all children, gravitate to activities they enjoy or that provide the type sensory input they seek. They will find the activity that gives them a sense of thrill or fun at that point in time. Then frequently, they move to another activity in order to seek a different type of experience.

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The EVOS Structure

With this group of children who have intellectual disabilities, you could see how Evos supports children at a variety of developmental levels. Every child started at an easy piece of equipment, and then based on their abilities, continued to move to more and more difficult components. Every child eventually found the component or activity that they were the most comfortable with.

One research team member observed that the entire Evos structure offered therapeutic teaching opportunities to explore numbers, shapes, colors and comparative sizes. The teachers from Endeavor Elementary discussed how they work with children to find circles, triangles, semi-circles and other shapes in the environment; they then count how many they can find. They also seek examples of different colors. Evos offered many new and unique teaching tools.

Hemisphere Net

- The level of motion in the cable makes climbing very challenging for many children. Often they climb two to three levels up and then move across the structure.
- Many children climb under it and through it at the first level. The child who uses a wheelchair climbed through it when not using his chair. He also would often stand and hold on to the net to support himself and hold on while the net moved back and forth.
- The children used the net to push their entire body into it for proprioceptive input.
- Many children appeared to enjoy the interactive response of the flexible cable when other children were climbing on the structure at the same time.

Gyro Spinner

- Huge success. The children loved it. It was easy to use. Observed teacher pushing them around.
- Children with a higher cognitive level learned how to spin it themselves.
- You could see the children who craved more vestibular movement spending much more time on the Gyro Spinner.

Ring Tangle

- Another huge success.
- Observed learning and achievement in action. At first children needed their teachers to help them. As they got more confident, they learned how to do it themselves. The children were happy with their achievements.

O-Zone Rings

- Similar to the Ring Tangle, the Ozone Rings were a learning experience. We observed the children problem solving and figuring out how to get up, across, over or through the rings.

Helix Net

- Interesting play took place on the Helix Net. One child would climb on top while another child crawled underneath. They would look at one another through the openings in the net and interact with each other.

Swingle Stix Bridge

- The bridge appeared to be the most challenging component on the structure -- most children did not attempt it, other than to sit on the bottom and move around it a little.
- This component offered acceptable challenge to older children as opposed to younger.

Ground-Level Activities

The ground level components were extremely important for many of the children. Some were afraid of heights, and some were unable to do serious climbing. The blind child was more comfortable at ground level, as was the child who used the wheelchair.

Chatter Noodles

- Noodles provided good sound quality.
- The shape allowed children without great stability to hug them and still hear well.
- They could hear/feel the vibration.
- The boy who was blind gravitated to and hung onto the Chatter Noodle.

Wobble Pods

- One of the best used pieces of equipment.
- The Wobble Pods were used in a variety of ways from sitting to standing, jumping or wiggling.
- One child used the wobble pods as a way to test the equipment, before she was ready to move on to more complicated pieces.
- One child achieved a breakthrough on the Wobble Pods by overcoming her fear of heights. She gradually stood on the Wobble Pod with less and less support from her therapist until she gained confidence to stand on her own. The look of achievement on her face came through with a huge smile.
- The fact that there were a cluster of Wobble Pods worked well as it was easy for the teacher to supervise and created a place for interaction among a number of children.

Cycler

- Observed boy in wheelchair use the Cycler quite a bit, along with others.
- Candidate for some minor design revisions.

Surfacing

- The surfacing made a positive difference for not only the child using the wheelchair (who was able to move his chair himself on the surfacing), but all children.
- For other children, they used the ground as a place to get comfortable before moving on to the equipment.
- The surfacing made the children feel safe. They could tell it was bouncy and forgiving, and thus were willing to attempt more difficult activities than they might have otherwise tried.

Swings

- The swings provided a place for solitary play, even if there were other children on the swings.
- Some children used the swings for constant vestibular motion.
- Other used the swings to get away from the action.
- The team agreed that swings are essential to a Beyond Accessible Playground. If not swings, then another piece of equipment needs to be placed further away from the main structure so that it provides a place to escape.