

KEY POINT SUMMARY

OBJECTIVES

This research sought to understand, from the child's perspective, the important aspects of play for children with and without cognitive disabilities. While the participating children played in a full-scale inclusive indoor environment with a variety of playthings, researchers assessed the children's play through five play aspects: independence in play, level of assistance needed, effort required, level of difficulty, and fun playing with different playthings.

Inclusive Indoor Play: Children at Play

Endicott, S., Kar, G., Mullick, A. 2009 | Proceedings of the Human Factors and Ergonomics Society Annual Meeting Volume 53rd Annual meeting

Key Concepts/Context

Prior research has shown that children with disabilities exhibit a more limited play repertoire than children without disabilities, due to barriers within indoor play environments that do not allow for equitable play amongst all children. This study is one part of the Inclusive Indoor Play project. This research project seeks to develop universal guidelines for design within indoor play environments, and design models of play environments that are inclusive to all children.

Methods

Participants for this study included eight male and 10 female children between the ages of 5 and 8. Of the 18 participants, 15 had various degrees of physical and cognitive disabilities and three did not. The playthings were divided into four play type quadrants: educational guided, educational open, recreational guided, and recreational open. Each child was directed to play with a plaything from each quadrant. The playthings were randomized, so each child played with a different grouping. After playing with the specified objects, participants were given a choice as to what object they wanted to play with for the remainder of their session. The play sessions were not time limited; however, most sessions lasted approximately one hour. Children were interviewed for their opinion after each interaction with an object in regards to difficulty of play and fun. Following the play session, two researchers assessed video using a benchmarking system to rate independence in play, level of assistance, and effort required to play for each participant.

Findings

Results suggest that regardless of gender, all participants show equitable levels of fun. A consistent pattern across all four quadrants of play showed lower levels of assistance, effort, and difficulty strongly correlated to higher levels of independence. Findings also suggest high independence is associated with low fun. In all four quadrants of play, the level of fun increased with an increased level of





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difficulty. Results for children in wheelchairs versus those without showed that children in wheelchairs exhibit less independence, needed more assistance, exerted more effort, and experienced more difficulty compared to children without wheelchairs; however, both categories of children reported similar levels of fun. A comparison of the different cognitive levels between the children reported direct correlation between level of independence and level of assistance. The level of independence increased according to increasing levels of cognitive impairment.

Limitations

Due to the small sample size, rigorous data analysis was implemented. This study also only took into consideration inclusive play due to limitations associated with using participants with a wide range of disabilities and the complexity associated with the social dynamics of group play.

Design Implications

This research addresses the need for designing play space within healthcare facilities to reflect a wide range of options for play that can engage both cognitively and physically impaired patients in a way that increases dependence on peers and/or family, thereby increasing opportunities for fun while receiving care.