Inclusive Playgrounds and Surrounding **Environments: Strategies and Considerations**

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Background

1. Importance of Playgrounds

• Playgrounds are unique physical and social spaces within communities that suspend traditional child-caregiver roles for a moment of rest and play.

The Importance of Play

Physical Development Increased brain size (Frost, 1998), decreased risk for obesity (Burdette & Whitaker, 2005).

Mental Development Improves creativity and problem-solving skills (Oostermeijer, Boonen, & Jolles, 2014)[,] and builds mental health resiliency (Gray, 2011).

Social Development Builds social skills like negotiation and cooperation (Pellegrini & Smith, 1998).

+ Playing is fun!

2. Playground Use for Children with Disabilities

- Some children with disabilities do not have equal access to playgrounds and the benefits they offer.
- The barriers these children face **depends on their disability** and are systemic in nature (Moore & Lynch, 2015; Perry et al., 2018).



3. Accessible Vs Inclusive Playgrounds

Accessible Playgrounds

Physical barriers are addressed within the playground design process, allowing children with disabilities access to the physical equipment within the playground (Fernelius, 2017).

Inclusive Playgrounds

Physical and social barriers are addressed within the playground design process allowing all children, including those with disabilities, to access the physical and social play within the playground (Fernelius, 2017).

- While inclusive playgrounds are accessibly designed, accessible playgrounds are not always inclusively designed for children with disabilities.
- Inclusive playgrounds are preferred, but **not always intuitive for practitioners to plan.**

Research Question

What considerations and strategies could help practitioners/ stakeholders advance how inclusive playgrounds are designed and experienced?

Methods

International environmental scan of inclusive playground practitioner materials (Contacted 23) practitioners and conducted Google searches).

154 documents obtained. Duplicates and non-English materials removed.

132 documents kept for review.

• Simultaneously, a scoping review of the academic literature on inclusive playground design was completed.

Acknowledgement

• Canadian Tire Jumpstart Grant: "Play Finds a Way Through Inclusive Playgrounds"

Building an Inclusive Playground: Playground Design + Playground Surroundings + Communications + Inclusive Programming



Results

1. Playground Surroundings

• Produce surroundings that allow all children to access, play, and stay in the playground.

Accessible Parking
Locate multiple
accessible parking
spaces close to the
playground.

Facilities & Amenities Include facilities like accessible bathrooms, water fountains, charging stations and mobility device parking.

Accessible Pathways Create pathways that easily allow two wheelchairs to pass by one another.

2. Playground Design

• Consider designs that facilitates safety, social interaction, and access to diverse play opportunities.

Site Selection 🔒	Play Components	Layout
Consider site size, 🌋	Enhance play richness by	Place equipment of varying
grading, visibility, 👚	including accessible	challenge levels in close
trees, and proximity	equipment that facilitates	proximity to one another to
to other institutions.	a diversity of play types.	facilitate social interaction
		between different groups.

3. Playground Communications

• Consider communication strategies that allow anyone to plan a trip to the playground with the most up-to-date information on its condition.

Websites	Social Media
Use a website as a centralized resource for	Use social media as one way to notify
accessibility information, maintenance	the community about maintenance or
updates, and promotional material.	programing updates at the playground.

4. Playground Programing

• Use programming to take advantage of and leverage the inclusive infrastructure to facilitate inclusive play between children in ways they can be replicated outside the program.

Program Promotion Advertise program details and timings using onsite signage and/or online posts.

Staff Training

Provide ongoing training on inclusive play strategies for staff members.



Program Content

Include both adult-led and child-led play, and promote social interaction between different groups.

Conclusions

- **1. Inclusive playground design** has been engaged in practice-oriented materials, but more attention must be given to the inclusive design of playground surroundings, communications, programming and maintenance.
- 2. Report considerations and strategies should be engaged at the very beginning of a playground's design process, and revisited throughout the playground's lifetime.
- 3. Inclusive playground design could be greatly enhanced via greater consideration of the **lived experiences** of children with disabilities and their families.



So What?

These considerations and strategies will help **Holland** Bloorview families to access, play, stay, and feel welcome within their community playground environments.



References

Burdette, H. L., & Whitaker, R. C. (2005). Resurrecting Free Play in Young Children: Looking Beyond Fitness And Fatness To Attention, Affiliation, And Affect. Archives of Pediatrics and Adolescent Medicine, 159(1), 46–50. https://doi.org/10.1001/archpedi.159.1.46 Fernelius, C. L. (2017). Evidence-Based Practices for the Design of Inclusive Playgrounds that Support Peer Interactions Among Children with All Abilities. All Graduate Theses and Dissertations, 6809.

Frost, J. L. (1998). Neuroscience, Play, and Child Development. In IPA/USA Triennial National Conference. Longmont, CO. Gray, P. (2011). The Decline of Play and the Rise of Psychopathology in Children and Adolescents. American Journal of Play, 3(4), 443–463

Moore, A., & Lynch, H. (2015). Accessibility And Usability Of Playground Environments For Children Under 12: A Scoping Review. *Scandinavian Journal of Occupational Therapy*, 22(5), 331–344. https://doi.org/10.3109/11038128.2015.1049549 Dostermeijer, M., Boonen, A. J. H., & Jolles, J. (2014). The Relation Between Children's Constructive Play Activities, Spatial Ability, and

Mathematical Word Problem-Solving Performance: A Mediation Analysis In Sixth-grade Students. *Frontiers in Psychology*, 5, 1–7. https://doi.org/10.3389/fpsyg.2014.00782

ellegrini, A. D., & Smith, P. K. (1998). The Development of Play During Childhood: Forms and Possible Functions. Child Psychology and *Psychiatry Review*, 3(2), 51–57. https://doi.org/10.1017/S1360641798001476

Perry, M. A., Devan, H., Fitzgerald, H., Han, K., Liu, L., & Rouse, J. (2018). Accessibility and Usability of Parks and Playgrounds. Disability and Health Journal, 11(2), 221–229. https://doi.org/10.1016/j.dhjo.2017.08.011