Guiding the Design of Inclusive Playgrounds through Needs Assessment and Materials Selection

(Technical Report)

Past Park Exclusive Design Methods Towards People with Disabilities

(STS Research Paper)

An Undergraduate Thesis Portfolio
Presented to the Faculty of the
School of Engineering and Applied Science
In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science in Civil Engineering

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May 11th, 2021

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Socio-technical Synthesis

The conversation surrounding the integration for all-abilities inclusive design has grown significantly within the past several decades. Particularly in terms of playground design, this begins with the distinction between accessibility and inclusion in design. In terms of disabilities, accessibility is the practice of designing in a way that permits individuals access to utilize a product to some degree; however, inclusive design is the idea of designing in a way that a product could be used universally by individuals of all abilities. Seeking to aid a local organization in the creation of an all-abilities playground, my Capstone team's research focused on researching a playground user-group as well as providing playground surfacing material recommendations to the organization. The intentions of this technical research is that the organization utilizes the information it is provided in order to ensure inclusion is being maximized in the playground design process. Today, there is a trend shifting towards inclusive design and away from basic compliance with American Disabilities Act's standards of accessibility, but unfortunately implementation methods of inclusive design vary significantly. Connecting these project tasks within the larger scope of inclusion, it is important to consider inclusion as a measurement within the design so that the playground designed can accurately represent all abilities and serve a variety of groups. This concept can seem a daunting goal to achieve, but one way to learn how to best optimize inclusion, is to investigate the methods that have been utilized by previous designs and from there interpret how methods can be improved upon in future design. As a standard form of measurement, the framework of universal design can be applied due to the concept's founding principles and practices. Universal design is a framework that is based on maximizing use and minimizing need for adaptation. Universal design will be used as a connection to

specifically determine the ways in which past design methods have excluded individuals with disabilities. Gathering data from secondary sources such as previous literature and agency reports, I will use case studies and case comparison to analyze such design methods. Through the socio-technical research, I expect to find sufficient evidence of specific playground exclusion, which then can be used to reinforce the data collected in my capstone project. It is the hope that through conducting such research on how design methods lack inclusion, we as a Capstone team may be able to improve our own understanding of inclusive design practices and demonstrate these principles in the data we present.