

# Fair Play: A Qualitative Exploration of Visitor Behavior at PlayGrand Adventures All-Abilities Playground

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## ABSTRACT

People with disabilities in the United States have access to a fraction of engaging play experiences available to others due to playground design choices, minimal legal requirements, and societal acceptance of the status quo. PlayGrand Adventures, the first and largest all-abilities playground in North Texas, meets this need by providing engaging play opportunities for everyone. This qualitative case study explores and describes community engagement at PlayGrand Adventures, informed by principles of environmental reciprocity supported by Bandura's Social Cognitive Theory (1986) and Gibson's Affordance Theory (1979). The researcher collected data on community perception and engagement via a questionnaire, semi-structured interviews, and playground observations. The study fills a gap in academic research on all-abilities playgrounds in the United States to increase awareness of the systemic underserving of people with disabilities in this country and provides a potential solution. The researcher offers initial recommendations for PlayGrand Adventures' future development and implementation with implications for replication in other cities.

## KEYWORDS

*accessible, all-abilities playground, disability, inclusion*

Children and adults with disabilities merit the same opportunities for development and social engagement as those without disabilities. It can be challenging, however, to find playgrounds that are engaging for all visitors. Playground design should include equitable features for marginalized populations, yet almost 20 percent of the United States population consistently receives fewer, inferior opportunities to play (Brault, 2012; Stanton-Chapman & Schmidt, 2019). People with disabilities are at a greater risk of acute and chronic health issues stemming from a lack of physical activity (Booth et al., 2012; Centers for Disease Control and Prevention, 2018; Office of Disease Prevention and Health Promotion, n.d.). Free, accessible city services and facilities, like parks and recreation centers, are critical to ensure all people's physical and mental health and development.

North Texas is a 9,000 square mile region containing 150 cities, including Dallas and Fort Worth. Nearly ten percent of 6.8 million North Texans live with physical and cognitive disabilities, and 114,433 of these live below the poverty line (North Central Texas Council of Governments in PlayGrand Adventures: A Dallas-Fort Worth Destination, n.d.; North Texas Commission, 2016). PlayGrand Adventures, an all-abilities playground located in the North Texas

city of Grand Prairie, aims "to create and manage an inclusive playground where children and adults of all ages and abilities can play together, in a seamless, barrier free [sic] and playful environment" (PlayGrand Adventures, n.d.). PlayGrand normalizes inclusion by offering equipment and features that can be enjoyed by everyone: children with physical and intellectual disabilities, children without disabilities, parents with disabilities who want to play with their children, aging relatives, people who want open spaces, people who love risky play, and people who prefer tranquil spaces. As the vision and creation of this playground develop, visitor engagement with existing features should guide design and implementation strategies.

## STATEMENT OF THE PROBLEM

Everyone needs and deserves to play, connect, and belong. People with disabilities need the social-emotional, cognitive, and physical development supported by playing independently, cross-generationally, and with their peers (Clarke, 2018; Deaver & Wright, 2018; Yılmaz & Soyer, 2018). Furthermore, people with disabilities are positively impacted by learning and practicing attributes such as



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respect, empathy, creativity, self-advocacy, and agency in social situations with peers (Clarke, 2018; Deaver & Wright, 2018; Yilmaz & Soyer, 2018). Communities must ensure all individuals have equitable access to engaging playgrounds and other play spaces.

The lack of equitable play-based resources and opportunities impacts how often children with disabilities play (Jenvey, 2013; Reimers et al., 2018). In 2014, 23 playgrounds in North Texas were deemed accessible based on a minimal standard of having at least one accessible feature (NPR, 2014). This standard means a playground could qualify as accessible by having a smooth, wheelchair-friendly surface, even if none of the play equipment was accessible by a child in a wheelchair. These 23 playgrounds offered a variety of features, primarily focused on mobility accommodations, but none offered all accessible features. Twelve playgrounds had smooth services throughout for ease of transport within the space. Eight had transfer stations for visitors to move or be moved from their mobility device to a play feature, and six had ramps to play components. Six had at least one accessible swing, three had play components utilizing sound, and one had a play component for visually impaired visitors (NPR, 2014).

The extent to which people with disabilities in North Texas are underserved is an ethical as well as a legal issue. The Americans with Disabilities Act of 1990 (ADA) aimed to prohibit discrimination against people with disabilities and ensure equity in rights and opportunities. Public recreation facilities, like city parks and playgrounds, must follow certain specifications to ensure equitable opportunities and resources are available for all visitors. Playground must have accessible pathways. The surfacing material and grade must allow ease of use by people with physical disabilities. There must be ramps and transfer stations that allow access to play equipment for people who use mobility aids (Americans with Disabilities Act of 1990). Accessibility is necessary, and these accommodations are essential, but they are not enough to ensure equitable experiences for all visitors. The law requires attention to critical mobility issues regarding equipment and entry, but it ignores sensory issues, sight and sound disabilities, developmental delays, and intellectual disabilities (Americans with Disabilities Act of 1990).

Playgrounds need more than smooth surfaces and transfer stations for wheelchairs. These mobility accommodations provide access to some playground features. Still, they do not give independence to a child who wants the freedom to play on a piece of equipment without being lifted by a caregiver (Siu et al., 2017). Playgrounds should have more than a swing that can accommodate a wheelchair—they need swings, slides, and towers that can accommodate wheelchairs, walkers, braces, and crutches. They need quiet spaces, features with lights and sound, sensory elements, challenge courses, and open areas for all types of play (Christensen & Morgan, 2003). Playgrounds should innovate, create, expand, and provide opportunities for all unique individuals to play together to reap the positive benefits of play (Brown, 2010; Christensen & Morgan, 2003; Clarke, 2018; Stanton-Chapman & Schmidt, 2019; Zahl et al., 2014).

Community engagement is necessary for playgrounds like PlayGrand Adventures to succeed, expand, and innovate (City of Fort Wayne Parks & Recreation, n.d.; George et al., 2012; Manzo & Perkins, 2006). All-abilities playgrounds require significant space and funding, so there must be a perception of value to multiple community stakeholders for long-term support and sustainability (City of Fort Wayne Parks & Recreation, n.d.; Jonathan's Dream,

n.d.; Zahl et al., 2014). Building an all-abilities playground is an important first step in solving the problem of access to equitable places to play. Without engagement from the community through visits, advocacy, and funding, an all-abilities playground will not thrive (Jonathan's Dream, n.d.; Manzo & Perkins, 2006). For this reason, this study focuses simultaneously on the need for all-abilities playgrounds to support people with disabilities and the need for community engagement to support such playgrounds, specifically PlayGrand Adventures.

## PURPOSE OF THE STUDY

The problem PlayGrand Adventures and other similar playgrounds across the nation strive to solve is one of inclusion (Jonathan's Dream, n.d.; PlayGrand Adventures, 2020; Shane's Inspiration, n.d.; Zahl et al., 2014). This qualitative case study seeks to understand community engagement with PlayGrand Adventures all-abilities playground in Grand Prairie, TX. The PlayGrand Adventures master plan is ambitious and designed to be built over several years. This playground is a place for play, learning, connection, and opportunity that will serve as a model for similar initiatives in other areas.

Understanding how the community engages with the first phase of the playground is essential for making informed, effective decisions about future building phases, partnerships, and engagement strategies. At this stage in the research, engagement was considered through the lenses of playground visitation and the utilization of available features. Donor behavior and community perception will be more deeply considered as the dissertation develops and more data are collected. One central research question guided this qualitative case study: How do community members engage with PlayGrand Adventures? Three subquestions inform this central research question: How do visitors utilize PlayGrand Adventures, how do donors support PlayGrand Adventures, and how does community perception of PlayGrand Adventures drive engagement?

This study satisfies a need to determine how community constituents engage with, utilize, and perceive PlayGrand Adventures. The results will inform the design and implementation strategy at PlayGrand Adventures to ensure future phases meet the community's needs for a place everyone can play. A larger, long-term opportunity also exists to raise awareness about the need for reasonable proximity and access to all-abilities playgrounds across the nation, create a roadmap for replication, and fill a gap in research on the topic in the United States.

## THEORETICAL FRAMEWORK

Social Cognitive Theory, introduced by Albert Bandura in 1986, posits that (1) people learn from observing others, (2) learning may not result in a change in behavior, (3) cognition plays an important role in learning, and (4) people have control over their actions and environment to a certain degree. The environment is critical in this theory because learners react to what they observe in the environment: general conditions and immediate stimuli. They see that actions are vicariously or directly reinforced, ignored, or punished, and they learn what behaviors to enact based on the observed consequences (Bandura, 2001; Ormrod, 2020). Perception affects behavior—people need to see a payoff to pay attention to



something or perform a behavior (Bandura, 2001; Merriam & Bierema, 2013; Schunk & DiBenedetto, 2019). These perceptions and observations combined with a person's sense of self—self-efficacy, self-confidence, and self-concept—leading to reciprocal causation or an interaction of the environment, the person, and the enacted behaviors (Bandura, 2001; Merriam & Bierema, 2013; Ormrod, 2020). This theory is observable in both formal and informal environments, including school buildings, online learning environments, and even playgrounds (Bandura, 2001; Dewar et al., 2013; Merriam & Bierema, 2013; Schunk & DiBenedetto, 2019).

Gibson's Affordance Theory (1979) underscores the importance of understanding how perceptions shape experiences. Affordance Theory in perception psychology explains how humans and animals interact with their environment.

[O]rganisms are given, furnished, provided, or "afforded" support and resources by the environment so that the individual has an opportunity to behave in a particular manner. For example, the affordances of an edible substance, a smiling face, and a solid surface provide, respectively, the individual with the opportunities to eat, to engage in conversation, and to walk securely across an unfamiliar expanse. (Roeckelein, 2006)

Gibson (2015) posits that while what the environment affords remains constant, perception can change depending on who interacts with the environment. For example, an adult's eye level is not eye level for a child, creating a difference in how they view and perceive objects. The perception of what the environment affords impacts the experience one can have in the environment (Gibson, 2015). Therefore, considering this theory is vital in ensuring people with disabilities are included in play environments and experiences.

Creating a playground with multiple features that bring all ages and abilities together affords an environment of equity and inclusion that surpasses the minimum standards required by federal law. This type of environment affords a perception that everyone can have fun playing together in comfortable, safe, and developmentally beneficial ways (Stanton-Chapman et al., 2020; Stanton-Chapman & Schmidt, 2019). This approach decreases the stigma often associated with disabilities and removes societal barriers and limitations imposed on a significant portion of the population. Through this study, the researcher considered multiple opportunities to engage and explored levels of engagement. If there is a perception of value to the community, the community will engage with PlayGrand Adventures.

## REVIEW OF EXISTING LITERATURE

Existing literature support the importance of play for all children. Children who play benefit from active, creative opportunities for social, emotional, and physical development (Buchanan & Johnson, 2009; Convention on the Rights of the Child, 1989; Deaver & Wright, 2018; Menconi & Grohmann, 2018; Siu et al., 2017). Unfortunately, most public playgrounds are not equally accessible by all children, especially those with disabilities (Siu et al., 2017; Stanton-Chapman et al., 2020; Stanton-Chapman & Schmidt, 2019; Zahl et al., 2014). Federal law stipulates that people with disabilities must have access to the same quality of public services as people without disabilities. However, the same law sets accessibility standards for people with disabilities far below what the general population can enjoy (Americans with Disabilities Act of 1990; ADA Amendments Act of 2008). Allowing this inequity to exist does a disservice to the almost

one in five Americans living with physical and cognitive disabilities, an already chronically underserved and disadvantaged group of people (Brault, 2012).

## The Benefits of Play

When children play, the brain creates neural pathways that help them process emotions and gain executive functioning (Brown, 2009; Panksepp, 2007 as cited in Clarke, 2018). Play is critical for developing happy, creative, well-adjusted adults who innovate and sustain positive relationships (Brown, 2009). By participating in team play, children develop teamwork, empathy, and respect while learning to follow the rules and help others (Siu et al., 2017). Children need to play in different environments to develop emotional intelligence, social skills, motor coordination, problem-solving, and abstract thinking (Siu et al., 2017; Yilmaz & Soyer, 2018).

Playgrounds provide a place for people to engage in different types of play that can introduce new skills and experiences. Deaver and Wright (2018) found that children develop social skills like patience and problem-solving while playing together on playgrounds. Academic lessons that take place on outdoor playgrounds build cognitive and social skills, including inquiry, observation, and motor skills like digging and climbing. Learning at a playground increases feelings of well-being in children and provides an opportunity to make connections between the curriculum and the natural world in ways that are not possible in a traditional classroom (Deaver & Wright, 2018).

In addition to social, emotional, and academic development, playgrounds promote healthy physical development. Playgrounds provide a space for children to get outside, run, jump, climb, and interact with one another. When children see their peers engaged in this physical activity on a playground, they are more likely to engage in physical activity themselves (Reimers et al., 2018). "Playgrounds should offer a wide variety of play facilities and provide spaces for diverse play activities to respond to the needs of large numbers of different children and to provide activity-friendly areas enabling their healthy development" (Reimers & Knapp, 2017, p. 1). According to Reimers and Knapp (2017), these spatial features impact physical activity more than other predictors, including cleanliness, aesthetics, quality, division of features, or playground size.

Children are curious, and playgrounds provide a space for them to take calculated risks that develop their decision-making skills, judgment, and understanding of consequences. In addition, play is fun, engaging, and interesting, and children enjoy activities that raise their stress levels and induce an exciting bit of fear (Gill, 2018; Sandseter, 2009a, 2009b). According to Gill (2018), risky experiences help children build flexibility, resilience, and confidence. Playgrounds also provide an important facility for children to practice risk compensation and test their boundaries. Climbing, spinning, play fighting, and moving fast all contribute to this growth and development opportunity (Gill, 2018).

Without equitable access to a full array of play spaces and playground equipment, people with disabilities cannot experience the same valuable opportunities to grow, learn, and interact socially as their peers. A fully accessible and usable playground with appropriate equipment and structures provides more significant opportunities for family and caregiver engagement, social inclusion, and promotion of physical activity (Zahl et al., 2014). Opportunities to play help children with disabilities develop academically, socially, and emotionally (Alison et al., 2013; Brown, 2010; Bundy et al.,

2008; Milteer et al., 2012). Denying access to equitable play experiences and opportunities, in both quantity and quality, denies children with disabilities the opportunity for development and social belonging.

### Traditional Playground Design

Traditional playgrounds across the world feature similar designs that include easily maintained, mass-produced features. They are familiar, perceived as safe, and can fit into compact spaces (Siu et al., 2017). A study of inclusive playgrounds in Hong Kong noted the sameness of public playgrounds and the reliance on efficiency of design and maintenance.

[P]laygrounds had a 'fast food' standardized characteristic. The play contents were homogenous and repeated. The playground design did not focus on children and their rights to play. Instead, having less safety issues, less complaints, easier management and maintenance were the ultimate goals of designing playgrounds. (Siu et al., 2017, p. 171)

The research asserts that this focus on efficiency leads to playgrounds that are deemed inclusive based on a few features, such as smooth surfaces and the availability of ramps. However, while technically accessible, these playgrounds are not inclusive. They lack signage and aids for caregivers, and while there are some games for hearing, vision, and cognitive development, the composite structures do not include proper accessibility for inclusive play (Siu et al., 2017).

Figure 1 compares what is considered an accessible seesaw to a genuinely inclusive seesaw. The accessible seesaw (left) does not differ much from traditional seesaws. The inclusive seesaw allows independent entry and utilization by people who use mobility devices via a wide ramp connecting the ground directly to the seating area. The smooth surface around the traditional seesaw allows people who use mobility devices to get to it, and it is low to the ground so that a caregiver is able to lift a child out of a wheelchair and onto the seesaw. However, an individual with a physical disability is not able to play on the seesaw independently (Siu et al., 2017). This same issue of accessibility by technicality is seen in parks in North Texas

and across the United States and includes other playground equipment, like slides and swings, that are accessible but do not invite independent play (NPR, 2014).

Removing physical barriers promotes accessibility, but doesn't necessarily improve social inclusion. Providing greater physical access within the play environment without creating similar social access can actually emphasize a child's disabilities, rather than their capabilities. Perhaps only one in ten children who use wheelchairs and other mobility aids are able to use a standard transfer system. And then they may be able to move around the equipment only by crawling. Too often, children with disabilities who can access equipment find themselves isolated because the 'fun stuff' is all at higher levels, beyond their reach. (Christensen & Morgan, 2003, p. 51)

Thus, access without inclusion does not afford an equitable opportunity for social belonging or physical, cognitive, and emotional development to children with disabilities. PlayGrand Adventures strives to be an inclusive space where people of all ages can experience engaging play together.

### The Need for Academic Scholarship

Grassroots efforts and word-of-mouth marketing have effectively increased awareness of inclusive playgrounds, existing since 1996 and garnering attention from local media and playground equipment manufacturers (Zahl et al., 2014). Still, there is a need for more academic research to deepen understanding of how inclusive playgrounds create opportunities for people with disabilities to thrive (Boldureanu, 2015; Jenvey, 2013; Stanton-Chapman et al., 2020; Stanton-Chapman & Schmidt, 2019). This knowledge transfer from academic research leads to technology, service, and product innovations that potentially disrupt the market and provide solutions to societal inequities (Boldureanu, 2015). Ultimately, this critical discourse is necessary for raising awareness, understanding options, and insisting on inclusive—not just accessible—opportunities and resources for people with disabilities.

Figure 1. Comparison of Accessible and Inclusive Seesaws



Note. From Siu et al., 2017. Photos are available for reprinting through a creative commons license.



This researcher is hopeful as more playgrounds are built, awareness will grow, leading others to learn about and support the work ahead. Demand for inclusive playground equipment could increase, potentially lowering its cost as it becomes more efficient to mass-produce. An increase in scholarship could drive policy change to more thoroughly insist on inclusion for people with disabilities in public playgrounds, impacting legal requirements, availability of resources, and societal mindsets. The development of inclusive playgrounds depends on the engagement of the community, inclusive mindsets, and prioritization of resources including space and funding (City of Fort Wayne Parks & Recreation, n.d.; Stanton-Chapman et al., 2020; Zahl et al., 2014). This study aims to begin the work of cultivating these outcomes through academic scholarship by thoroughly describing community engagement during the implementation of PlayGrand Adventures.

### RESEARCH DESIGN

The researcher utilized a qualitative case study design to deeply explore community engagement at PlayGrand Adventures including playground visitation and utilization, donor behaviors, and the role of perception in driving engagement. The qualitative case study methodology was appropriate for the specific focus on a sole location with a small sample size (Creswell & Poth, 2018; Yin, 2017). This narrow focus allowed deeper exploration of multiple themes and perspectives utilizing a variety of data sources (Yin, 2017). The researcher deeply examined multiple elements of one playground, offering a thick description and an accurate, contextual explanation of how visitors, donors, and other stakeholders interacted with the playground in person and virtually during the three-month period of the study (Creswell & Poth, 2018; Hayes et al., 2015). The in-depth analysis was bound by time and utilized multiple data collection strategies.

This study explored one primary research question: How do community stakeholders engage with PlayGrand Adventures? Three subquestions guided this exploration of engagement. The first, how visitors utilize PlayGrand Adventures, was answered through on-site observations of playground visitors focused on how they interacted with the equipment and environment. The second, how donors support PlayGrand Adventures, explored donor behavior and fundraising activities. The third, how community perception drives engagement, sought to uncover the role of perception through the lenses of Affordance Theory (Gibson, 1977) and Social Cognitive Theory (Bandura, 1986). While it was necessary to identify what types of engagement took place, understanding what drives

engagement enables PlayGrand Adventures and potential new inclusive playgrounds to respond to stakeholder perception in planning future design, implementation, marketing, and funding strategies. This paper focuses on playground utilization, and donor behavior and the role of perception are analyzed as key components of the complete dissertation.

Just as participants interpret the environment and their experiences, the researcher made meaning of the social engagement observed and understood through the inductive, constructivist process meant to adapt and respond as new data emerged (Creswell & Creswell, 2018). Lessons learned and personal connections from participants led to recommendations based on findings, which are targeted to multiple audiences to bridge gaps in understanding and provide practical and implementable solutions (Hayes et al., 2015; Yin, 2017).

### Data Collection

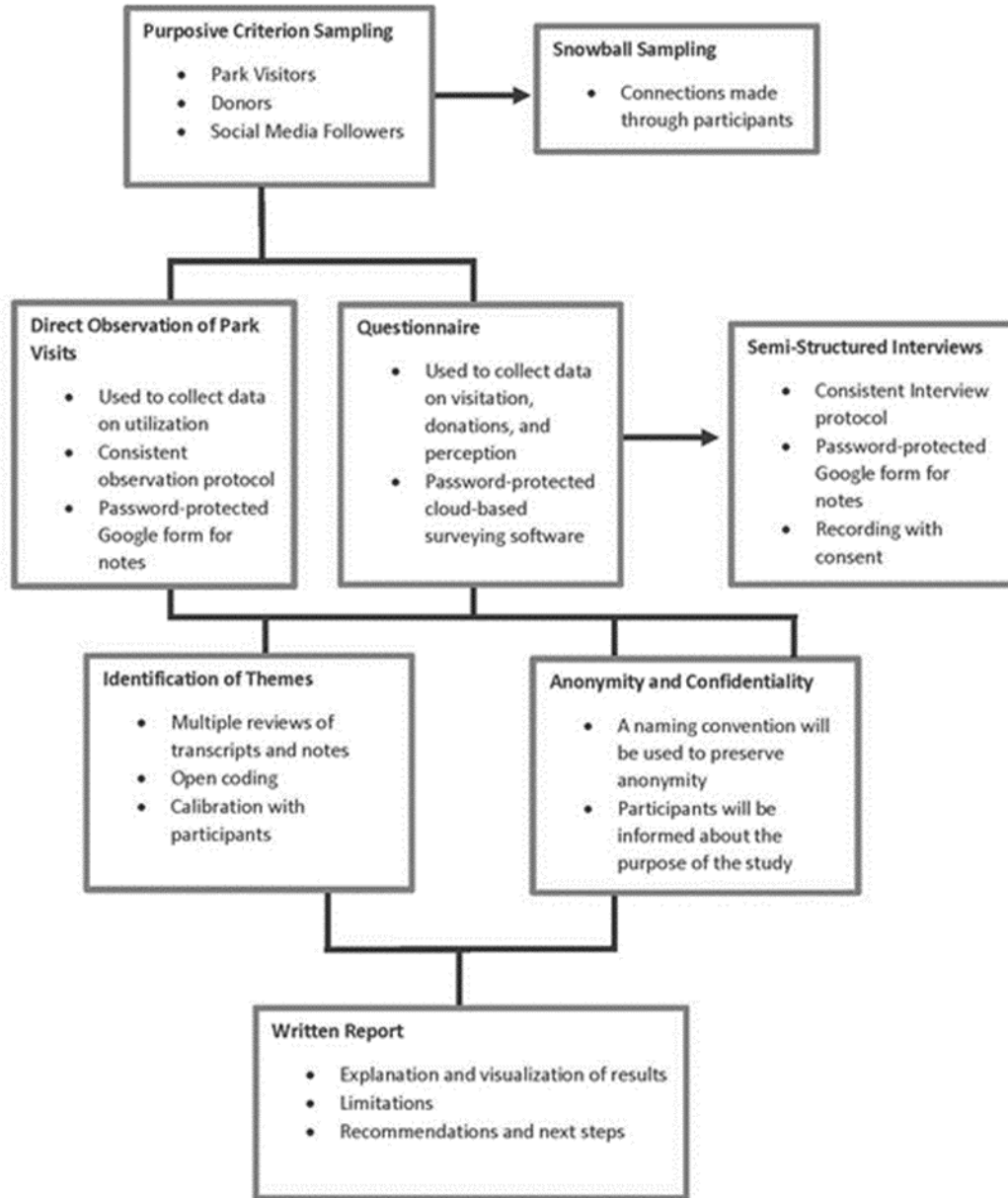
Data were collected via a questionnaire, semi-structured interviews, and on-site observations. The questionnaire was launched using a password-protected Survey Monkey account accessed only by the researcher. The 14 questions were primarily open-ended and covered a combination of demographics, behavior-based questions, and perception-based questions. Questionnaire participants opted into follow-up semi-structured interviews conducted virtually and recorded on the researcher’s password-protected Zoom account. These interviews provided additional data on the participants’ perceptions and experiences using their questionnaire responses as a springboard. At the time of writing, the researcher had received 29 questionnaire responses of a desired 50 and had conducted three interviews.

In-person observations began when the playground reopened at the end of October after an extended closure due to the COVID-19 pandemic. The researcher recorded data every day of the week at least once with observations beginning as early as 8:00 a.m. and ending as late as 5:00 p.m. The plan to conduct a total of 21 observations—visiting every day of the week during morning, lunch, and afternoon hours—shifted when city leadership once again made the difficult decision to close the playground due to a rise in COVID-19 cases. At this time, 14 observations had been conducted. The playground is not scheduled to reopen again until March 1, so the researcher has increased the number of desired interviews to 14 to maintain the depth of the data pool. The data collection process is detailed in Table 1 and Figure 2.

Table 1. Data Collection and Analysis

Subquestion	Data Collection	Data Analysis
How do visitors engage with the playground environment?	Questionnaire	Description using an observation protocol and field notes template designed for this study
	Follow-up semi-structured individual interviews	
	On-Site Observations	Identification and description of themes
How do donors support the playground?	Questionnaire	Description of different types of giving and rationale for giving
	Follow-up semi-structured individual interviews	Identification and description of themes
How does stakeholder perception of PlayGrand Adventures drive engagement?	Questionnaire	Analysis of themes based on word choice in responses
	Follow-up semi-structured individual interviews	Comparison of behaviors in different perception groups

Figure 2. Research Methodology



### Participants and Sampling

This study utilized purposive criterion-based sampling consistent with a qualitative research design as a starting point, with snowball sampling as needed to reach minimum participant numbers (Creswell & Poth, 2018). Participants were connected to PlayGrand Adventures in at least one of the following ways: as a social media follower, as a donor, as a visitor, as a Parks Department employee, or as a Parks Department board member. These roles ensured the participant had at least some interest in PlayGrand Adventures and knowledge of the playground. The participant pool varied for each data collection strategy, though there was overlap in participants.

The researcher conducted participant sampling in two distinct but convergent phases: virtual and in-person. Participation in the virtual phase was voluntary, beginning with a questionnaire distributed to potential participants via PlayGrand Adventures’ website and Facebook page. The researcher conducted semi-structured interviews with willing participants identified through the questionnaire. Participants in the in-person observation phase were visitors to PlayGrand Adventures. All visits took place during regular operating hours over a four-week period. The researcher did not identify or interact with the participants to avoid disruptions, to preserve anonymity, and to reduce interference with natural reactions to the environment (Yin, 2017).



### Observation Site

PlayGrand Adventures is a sprawling, ten-acre tract of land within a broader public entertainment and recreation area called Epic Central. In total, Epic Central comprises 177 acres of city-owned land and includes five lakes, a recreation center for active seniors at least 50 years old, a dog park, an indoor waterpark, an interconnected trail system, and an all-ages recreation facility with sports courts, exercise studios and equipment, a theater space, a recording studio, and a restaurant. PlayGrand Adventures is centrally located and accessible via a small parking lot, shuttle service from larger parking areas, or the walking trails. As visitors walk through the playground, equipment and features shift from manufactured to natural, active to tranquil, and team-based to individual play. Once fully implemented, the master plan will accommodate all ages, ability levels, and play preferences (PlayGrand Adventures, 2020).

Development of the PlayGrand Adventures master plan began in 2013 with a team of dedicated professionals and parents familiar with people with special needs. The playground contains multiple zones for different types of play. The complete master plan is depicted in Figure 3. The first phase is roughly five acres and includes Adventure Zone and Adventure Hill, as described in Table 2 and depicted in Figures 4 and 5. The play areas in Phase 1 offer familiar composite structures, multiple levels of access, sensory play elements, ADA-compliant poured-in-place rubber surfacing, musical instruments, isolated wheelchair swings, and an area for infants and toddlers (PlayGrand Adventures, 2020). While there are plenty of options for people to play at their own ability level, the layout invites collaborative play, utilizing physically scaffolded structures with multiple entry points and equipment designed for a variety of ages and sizes.

### Data Analysis

Data analysis followed a process depicted as the Data Spiral and explained by Creswell and Creswell (2018). After collecting data described in the previous section, the researcher organized and filed raw data including pictures, field notes, interview recordings, and questionnaire responses. All data were stored in a password-protected cloud file accessed and managed only by the researcher to protect identities and preserve anonymity.

Interpreting qualitative data requires researchers to make assumptions, revisit existing literature, and engage their personal beliefs and worldview in a responsible, trustworthy way (Creswell & Poth, 2018; Yin, 2017). Researchers must acknowledge and clarify

their biases and positionality as these cannot be separated from their interpretation (Creswell & Poth, 2018). This case's interpretation included triangulation of multiple data sources, member checking, and peer debriefing to ensure accurate representations of perceptions. These strategies mitigated confirmation bias and contributed to the validity of the study (Creswell & Creswell, 2018). While reliability cannot be confirmed based on these findings due to the nature of the study and the focus on one location, another researcher could repeat this process using the same methodology and protocols to test the results (Yin, 2017).

### INITIAL FINDINGS AND RECOMMENDATIONS

Initial data analysis indicated PlayGrand Adventures benefits the community as a safe, inclusive, well-maintained recreation area for children of all ages to learn, play, and develop. In the short time PlayGrand Adventures was open for public play, it became a beloved playground and jewel in the crown of a larger recreation area. Community members painted ceramic tiles that now adorn the entrance, a creative and successful fundraising campaign that created personal connections to the playground. The bright colors and welcoming design of the entrance brought families through the gates, and the engaging, challenging play features keep them coming back for more fun. During the time of COVID-19, families flocked to the outdoor space where they could eat lunch, move their bodies, and step away from their phone or tablet screens for a moment of connection in the fresh air.

### Questionnaire

Questionnaire respondents mention the importance of getting children outside and connecting with other parents in similar situations. Parents note that PlayGrand is a place all children can play together on a playground with engaging features for young children, teenagers, and parents with various ability levels. Visitors appreciate the various climbing structures, unique swings, roller slides, and soft ground. Parents enjoy that features are designed so they can comfortably play with their children. Most respondents love PlayGrand as it is, but there are some suggestions as the playground continues to expand, such as more parking, more bathrooms, a place to purchase refreshments, a splash pad, more climbing features, and more features for preschool and early elementary children. These requests are not specifically inclusive; rather, they would improve any traditional playground.

Table 2. PlayGrand Adventures Phase 1 Play Zones

Zone	Description
Adventure Zone	Adventure Zone provides the highest intensity play for all ability levels, featuring vibrant and whimsical play equipment and a wide variety of play opportunities, such as climbing, swinging, and spinning. Abundant shade and areas to socialize are spaced throughout the play area. This zone includes a play area specifically designed for toddlers with separated activities on a miniature scale.
Adventure Hill	Adventure Hill provides visitors of all abilities the opportunity to experience varying heights and physical challenges at new levels. The playground will accommodate spinning, sliding, climbing, and learning activities in ways traditional playgrounds cannot offer. Challenging opportunities expand as one climbs the 'Hill'.

Note. All text is reprinted directly from [www.playgrandadventures.com](http://www.playgrandadventures.com).

Figure 3. PlayGrand Adventures Master Plan



Note. From [www.playgrandadventures.com](http://www.playgrandadventures.com). Reprinted with permission from City of Grand Prairie Parks, Arts, & Recreation.



Figure 4. PlayGrand Adventures Phase 1 Play Zones Rendering



Note. Adventure Zone (left) and Adventure Hill (right). From [www.playgrandadventures.com](http://www.playgrandadventures.com). Reprinted with permission from City of Grand Prairie Parks, Arts, & Recreation.

Figure 5. PlayGrand Adventures Phase 1 Photographs



Note. Photos taken by the author during on-site observations.

## On-Site Observations

Data from observations support the need for more climbing features. Children climb everything: nets, fences, walls, slides, and even each other. The climbing features are popular throughout the playground and children of all ages cannot resist the temptation of climbing up the inside of slides and getting out of the way as quickly as possible when someone comes down. This type of risky play in a safe, controlled environment is a critical part of childhood development (Brussoni et al., 2012; Sandseter, 2009a), and PlayGrand provides many opportunities.

Two other popular features, the carousel and seesaw, invite collaborative play at a higher level than other features. Families have different personalities at PlayGrand. Some children play with who they came with and some children naturally befriend strangers. Some parents play, some follow along and coach from the ground, and some observe from a distance. These personalities stay intact as they move from feature to feature throughout the playground. The exceptions were with large spinning features, especially the carousel and the seesaw. These features appear to be more fun with more people. Players can bounce higher and spin faster as more people get involved, so this motivates children to bring others over to play with them. With other features, such as climbing structures, adding people does not improve the experience and indeed sometimes erodes the experience by causing crowding or extended wait times to engage. If the goal is to bring people together, features like these should be added to future phases.

## Semi-Structured Interviews

The researcher did not observe any people with apparent disabilities during playground visits, but two of three interview participants were parents of children with disabilities. These parents feel safe at PlayGrand Adventures due to the soft and bouncy surfacing, their abilities to keep their eyes on their children from various vantage points, and a design that intentionally includes people with disabilities with gradual elevations, attention to size and space needs, and scaffolded challenges. Their children have more opportunities to play at PlayGrand Adventures due to the quantity and variety of features available. Two expressed needs stand out for further consideration. Some of the adaptive features provide unique opportunities for play, but there are still restrictions due to the size. For example, the face-to-face swings are appealing, but they are too small to accommodate a child in leg braces without removing the mobility aid. There is also a need for an area where children with disabilities can play away from the hustle and bustle of the main playground on busy days. This supports the planned implementation of the forthcoming Tranquil Adventures zone.

## Recommendations

The perception of PlayGrand Adventures is overwhelmingly positive. Initial participants in this study enjoy the playground environment in its current state, though there are a few trends to consider for future development. Forthcoming zones should continue to include a variety of features that engage people of all ability levels without calling attention to differences. However, new zones should not simply replicate what already exists; participants desire new opportunities for climbing, swinging, sliding, and spinning. Designers should consider specifically engaging older visitors with sports,

fitness, and intense challenge opportunities such as basketball hoops, an annotated fitness trail, or an obstacle course. These features engage a new audience and also provide appropriate engagement for people seeking these experiences out on existing features. Finally, increasing communications about PlayGrand Adventures in new markets and media could bring in visitors and donors who are unaware of the playground and the opportunities to sustain and support its development. These recommendations are based on interim findings and will adjust to reflect additional data as the research process is completed.

## LIMITATIONS AND DELIMITATIONS OF THE STUDY

It is important to acknowledge several limitations in this case. The strict focus on one playground and small sample size prevented expansion into a mixed-methods case study and also inhibited the generalizability of the findings (Creswell & Plano Clark, 2018). The thick, rich description herein paints a detailed picture of PlayGrand Adventures that informs future development for this population, but these results could differ in other locations. The interpretation was based on data collected from a sample that might not fully represent the population, and much of the data was filtered through participants' differing lived experiences. Direct observations provided a different lens, but these were subject to the researcher's interpretation of behaviors due to her non-participatory role (Creswell & Creswell, 2018). The impact of COVID-19 further restricted the sample size and data collection opportunities due to an extended playground closure.

Delimiting factors chosen by the researcher included the focus on one playground, specific factors in subquestions, and the criteria for interview participants. Choosing an illustrative single case study allowed the researcher to deeply explore multiple subquestions, perspectives, and data sources that would have been unwieldy in a larger study with more locations and a larger sample size. This intense focus and depth of exploration benefit PlayGrand Adventures through specific recommendations customized for the needs and perceptions of their stakeholders. While several common challenges facing inclusive playgrounds emerged from existing research, the choice to focus on visitation, donor behavior, and perception was specific to the expressed and felt needs of PlayGrand Adventures. Likewise, choosing interview participants based on questionnaire responses ensured opportunities to collect additional data from key constituents with direct connections to the variables explored in this case. The study also fills a gap in the literature by addressing multiple common challenges facing inclusive playgrounds rather than focusing on specific challenges in isolation. This sets the stage for future research and the creation of new evaluation tools, frameworks, and theories.

## FUTURE RESEARCH

Understanding how the community interacts with the playground was the first step in what I hope to be the development of a complete roadmap to replicating the design and implementation of all-abilities playgrounds in cities across the country. People desire to give others opportunities, but they need to experience the benefits themselves and see a practical way to make things happen (Shane's Inspiration, 2019; Zahl et al., 2014). Expanding this case study into a



larger body of work will require additional research such as case studies in other geographical locations, convergent or explanatory mixed methods designs to expand understanding of frequencies and significance of variables, and exploratory mixed-methods designs to contribute to evaluation tools to measure the impact of inclusive playgrounds in different settings (Creswell & Plano Clark, 2018). The iterative research process in this study was informed by learnings along the way and the participants guided some of the process, hinting at a participatory social justice design that could develop in follow-up studies (Creswell & Plano Clark, 2018). With more research available to interested readers, the practicality of designing and building inclusive playgrounds may seem within reach for more cities, moving towards increased equity in our cities and improving academic understanding of an important emerging field.

## RESEARCHER REFLECTIONS

I have grown as a researcher throughout the preparation and implementation of this study. I approached this research with a pragmatic, constructivist worldview. I also desired to learn as much as I could from the data, and I remained open to adjusting course as needed to tell the complete story of PlayGrand Adventures. Before beginning my doctoral journey, I prioritized quantitative research as the gold standard, failing to see how research questions are like learners in a classroom—different challenges require different approaches. Through my education and the practical experience gained through my own study, I am more equipped to identify diverse research needs and effective responses. I am also more willing to trust the process, responding with a bit more lived experience as environments change.

The most significant adjustment stemmed from the COVID-19-related playground closure, which decreased the number of days available for observations; I completed 14 out of 21 planned observations. However, the observations conducted provided sufficient data for analysis. Another adjustment was evident in the way I recorded field notes. I saw a difference in the quality of my field notes from the first observation to the fourteenth as I learned the patterns of playground visitors. By the end, I was collecting more data in a shorter amount of time due to finding the flow in my process. While I started rigidly tracking a planned, timed path, my later observations moved organically and naturally as I recorded the most compelling qualitative data to address my specific research question. In addition, interviews added a level of context and understanding I could not have collected with limitless observations. Upon reflection, the closure forced a decision that has improved my understanding of PlayGrand Adventures specifically and the need for all-abilities playgrounds more generally. As an emerging qualitative researcher, this experience taught me to keep my focus on the end goal and to adjust course when the environment changes, an apt lesson in the context of Social Cognitive Theory (Bandura, 2001).

I believe everyone should have equal access to opportunities, but my privileged position protects me from personally experiencing oppression and disenfranchisement. Having never been challenged with a physical, intellectual, or developmental disability, I can freely enjoy playgrounds and recreation facilities. I do not have family members or close friends who have been prevented from playing on a playground due to inaccessible equipment or facilities. I am someone who felt my heart warm when I saw a playground with an accessible swing because it seemed progressive and inviting. The research I have conducted thus far in this field has opened my eyes

to the inequities legally permitted on playgrounds and what it means to be truly accessible to everyone. This playground study has certainly left me with more questions than answers because I am now looking at the problem as a qualitative researcher who understands there is always more to uncover through inquiry and research. As I finish this exploration and my doctoral degree, I have a list of evolving research questions to explore different angles, more playgrounds, and other challenges facing people with disabilities as they navigate a world designed for people without the same challenges. Inferior opportunities for people with disabilities inhibit their development and further stigmatize an already disenfranchised population. As a researcher, this topic provided an opportunity to fill a gap in academic literature, tap into diverse perspectives, and examine a problem from multiple angles. As a human being, this has been a learning opportunity with the potential to change hearts, minds, and actions.

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