

Research Project Summary Report

Post Occupancy Evaluation (POE) of Kids Together Park
Cary, North Carolina



Prepared by:

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The research team gratefully acknowledges the willingness of the families that participated in this study to donate valuable to come and play in the park. Without their interest, willingness to participate and to contribute their insights, this study would have lacked much of its richness.

RESEARCH TEAM

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INTRODUCTION

Kids Together Park (KTP) is a universally designed family recreation facility, containing many uncommon settings and features, located in Cary, North Carolina. Design of the park started in 1994 with a community workshop involving children and adults in the design process. Several years of fund-raising followed until sufficient resources were available to build the park. It opened June 2000 and cost somewhat less than one million dollars.

The mission of KTP is to create a community recreational facility designed to support the needs of all family members, including children, parents, grandparents, caregivers, and friends regardless of their level of ability. The park also serves other community groups such as childcare centers, special education programs, and summer camp programs.

The design of KTP integrates natural recreational settings and manufactured play equipment so that a wide spectrum of recreational needs are accommodated, including gross and fine motor development, sensory stimulation, resting, nature contemplation, social gathering, and the arts. All those involved in implementing the project were committed to high quality design as a crucial vehicle for bringing together all sectors of the community. Children's play was considered a central focus, as it is such a powerful means of communication—between children and between children and adults.

OBJECTIVES OF THE POST OCCUPANCY EVALUATION

The Kids Together Park (KTP) Post Occupancy Evaluation (POE) represented a special opportunity to investigate how high quality recreational settings can support a wide range of activities for multiple user groups and stimulate positive social interaction among them. The purpose of the POE was to learn about the users of the park and to investigate how the design of the park served their needs. The goal was to create evidence-based guidelines to support universal design of designed settings in public parks.

A variety of research techniques (behavior mapping, behavior tracking, videos of special needs family visits, and user interviews) were used to evaluate how the facility as a whole and its component parts supported the needs of all family members, including

children, parents, grandparents, caregivers, and friends regardless of their level of ability.

THE SITE

The model family park is located in Cary, North Carolina, just off the Cary Parkway at 111 Thurston Drive, behind the Wellington Village Shopping Center.

From a welcoming drop-off, entry setting, broad curving pathways connect four, physically differentiated use areas:

- 1. Pre-school discovery area** featuring a sand “river” with a bridge, playhouses, swings, pathways, shade trees and gathering areas.
- 2. School-age discovery area** featuring a climbing structure with crawl tunnels and look-outs, plus pathways and gathering areas.
- 3. School-age active play area** featuring a large play structure with climbers and slides in addition to several swings and smaller pieces of play equipment.
- 4. Hillside with KATAL (Kids Are Together At Last) dragon sculpture** created by artist William Moore.

KTP also features a handsome picnic shelter and bathroom building available for family and community gatherings. A shady grove of trees conserved from the original woodland that covered the site offers a place for informal gatherings and picnics.

Robin Moore, Director of NLI, developed the master plan for the park and collaborated with Little and Little, Landscape Architects, Raleigh, North Carolina, on the implementation of the design. A key part of the community design process was a series of workshops with children and adult stakeholders to develop the design program and design features for the park.

BRIEF HISTORY

The success of Kids Together Park is partly explained by the commitment by all involved to make the design process, organizational structure, and fund-raising events participatory—and fun. The park took seven years to develop beginning in 1993.

1993 Commissioner Bruce Brown invites Robin Moore to present ideas for a "playground for all children" to the Cary Parks and Recreation Commission. Robin Moore invites Little & Little,

Landscape Architects, to collaborate in preparing an initial proposal for design services to the Town of Cary.

1994 Schoolgirls Kristy Holcombe and Helen Rittelmeyer (who had siblings with disabilities) raise money for a playground to include kids with special needs. Their first craft sale raised \$1,300. September 24th., "Playground for All Children" Community Design Workshop with stakeholders workshop in the morning and children's design workshop in the afternoon.

1995 Master Plan developed by Robin Moore based on workshop ideas. May 26th, Kristy and Helen present the Town of Cary with \$1,000 raised selling crafts, used toys, raffle tickets and baked goods. (The girls raised \$12,000, \$270,000 was contributed by donors to the park's nonprofit organization, and the remainder was contributed by the town of Cary for the \$1,000,000 Park). Marla Dorrel emerged as the indefatigable coordinator / fundraiser (besides Kristy and Helen).

1996 Nonprofit organization formed and obtained 501-c3 status.

1997 Fund raising includes "Reach for the Stars" small change drive collecting \$1,307.27 from April 12 to May 10th. \$100,000 funding milestone reached in June. May 20th, Kids Together design workshop to begin Design Development of Phase I. Little & Little authorized to proceed on phase one construction documents. August 25th, First meeting of Development Committee.

1999 January 15th, groundbreaking celebration. Contractor Polovick Construction begins work on infrastructure.

2000 J. D. Beam begin playground construction. February 4 to 6, volunteers erect play structure. May Community Planting Days. Volunteers plant new beds. June 3rd, Kids Together Park officially opens. "Name the Dragon" contest launched. Children send in entries. KATAL (Kids Are Together At Last) selected. Cary Visual Arts present KATAL by William Moore to the Town of Cary.

2001 June 3rd. First annual Play-a-Thon and birthday celebration held to continue raising money.

2001 Kids Together Park continues to adapt to the needs of the community with improvements in equipment and additions to the landscape plantings.

2004 The playground celebrates its fourth birthday.

LITERATURE REVIEW

An exhaustive literature search was conducted by Marcelo Guimaraes, research team member and universal design expert, in three areas:

1. Literature related to POE methodology in general. The bulk of the extensive literature related to POEs of buildings rather than public spaces.
2. Literature that addresses universal design POE issues in general. Scant literature exists in this area. The literature review concludes that the behavior – environment literature related to the use of designed outdoor space by children and families

provides a useful guiding framework for the POE of Kids Together Park. Attempts in the literature associates the principles of universal design with POE methods recognize the need for more operational criteria for universal design. Thus, in this POE, the principles will not be incorporated in the framework of analysis. However, an attempt will be made to identify possible operational universal design criteria from the POE findings.

3. Behavior-environment and POE literature related to public parks, including playgrounds and family recreation areas. Although literature specifically focused on POEs is limited, key evidence-based design guideline items are included (Moore, et al., 1997; Goltsman, 2001) that specifically address universal design issues.

METHODOLOGY

The *research design* proposes two levels of analysis. The first level is an assessment of park-wide, spontaneous use by the community. The second level is an assessment of how the park is used by selected families with a family member with a disability.

The proposed *multi-method research strategy* addresses universal park design through a participatory, inclusive approach that regards users' knowledge as a highly qualified portion of the body of data for analysis.

DATA GATHERING

1. Park-wide, spontaneous use through behavior mapping (tracking and overall), setting observations, and on-site interviews.
2. Selected families with a member with a disability through park visits. Episodic behavior of target child or adult was videotaped to document interactions with physical settings and features, accompanying family members, and other park visitors.
3. Structured, open-ended interviews were conducted with family members after the visit.

Multi-method research strategy addressed universal, inclusive park design through a participatory approach that regards users' knowledge as a highly qualified portion of the body of data for analysis. Behavior maps were compiled in GIS format.

SUMMARY OF SITE VISITS WITH FAMILIES

All families highlighted the fact that Kids Together is an inclusive park where adults and children with and without disabilities can enjoy. Landscape features attracted attention of children and adults providing additional enjoyment to the visit. Families appreciated the complexity of the park (i.e. secondary system of pathways, multiple ways to get to play settings such as different slopes and steps in a particular area).

All families were very positive about the universal design features of the park and suggested few additions and changes including the improvement of handrails and handholds in the play equipment, addition of swings to reduce waiting, the installation of more benches, provision of shade in the summer, addition of sound instruments, and the installation of a family bathroom.

Mother and daughter

Daughter 28, profound retardation, low muscular tone

Mother without disability

Liked the most

- Dragon. Looking at the “pool” (water in tail after rain). Works for wheelchair users.
- Low structure with ramps. Ups and downs. Easy with wheelchair.
- Path structure. Nice flow. Wander around. Good when playing. Compact.

Add or change

- Handholds on underside of low structure—or straps. Would help to stretch abilities safely.

Comments

“Family” park. People of all kinds of ages and abilities. Wandering around. Getting exercise. Intricate complexity. Much nicer than bare open feeling. Aesthetically appealing.

Family of two

Girl, fourteen years old, severe retardation

Mother, father, and sister without disabilities.

Liked the most

- Low structure.
- Tire swing area.
- Flowers to smell.
- Benches to watch people.

Add or change

- Lower green swing.
- Add a tire swing (don't like to wait).
- A glider.
- More benches.

Comments

Park is different every time you are here. Whole family can play together.

Couple

Husband in sixties, neuromuscular dystrophy. Wife without disability.

Liked most

- Central play structure.
- Low play structure.
- Dragon.
- Multi-level sand table.

Add or change

- Family restroom.
- Ice cream stand.
- Operable drinking fountain.
- Sprayground. Smelling feature.

Comments

A place for anybody to enjoy. Large. Unique in its design. Would come even without kids.

Woman with dog

Woman in her forties, post polio.

Liked the most

- Structure on hill.
- Low play structure.
- Sand “bank.” Multilevel sand play area.
- Accessibility!
- Sense of moving fast through structure.

Would add or change

- Slide for children with disabilities with easier access—narrower approach to park chair and transfer with easy route to bring chair down.
- More graduated access to top of hill

Comments

Multiple heights accommodate children of different ages and abilities, and parents with disabilities. Sand play area invites to move to higher level.

Family

Man 43 year old. Autistic

Parents without disabilities

Liked the most

- Swings!!
- Plantings. Foliage is beautiful.
- Layout is great. Fenced in. Diverse to hold attention. All people. Kids/adults.
- Like the closeness, uniqueness. Safe and challenging.

Add or change

- Instruments that make various types of sounds.
- Third water fountain.
- Trails to natural area.

Comments

You need to go! Beautiful. Addresses needs of children. Great park for kids and families with kids. Intergenerational—whole family, old and young, little children. Great place for teens. Nice place for picnicking. Engages kids. Learning experience. It's a natural experience

FINDINGS

Findings related to universal design will be presented at levels ranging from general issues related to the park as a whole to findings related to specific features of the park.

THE PARK AS A WHOLE

1. Access

- a. **Information:** Several users commented that it is difficult to find information about the park on the Internet. The park is not showcased on the Town of Cary website. The description of the park gives no sense of its special design forms on users of all abilities, social inclusion, and diversity of settings (natural, social, and active). Most users found out about the park by word of mouth or by reading about it in the newspaper. Significantly, no one interviewed had discovered the park via the Town of Cary website. A search for “Kids Together” does pull up limited information about the park as well as information about another organization with the same name devoted to children with disabilities.
- b. **Transportation:** KTP is not served by public transportation and is therefore not accessible to families without a car or to parents who can't drive because of a disability.
- c. **Site:** Users arrive by car find physical access to the park simple and straightforward. Handicapped parking is situated a few yards from the entry plaza to the park. A vehicular drop-off zone is provided at the entry plaza. From there, broad almost flat, gently curving hard-surfaced pathways provide an accessible route to all zones and main settings of the park.

2. Ambience

Users mentioned being attracted by the overall ambience of the park, especially related to the naturalistic character of the park and richness of planting around the play settings. Other positive comments related to the social atmosphere. Users noted the diversity of other users, including age, cultural background, and gender as a positive aspect. The density of use was often high compared to other urban parks in the Triangle Area. Kids Together users enjoy the fact of others around them. Visitors were not there to escape from the company of other people but rather to enjoy the feeling of community. This was

especially evident in the zone devoted to families with very young children. Groups of chatting parents were often observed gathered on the elevated bridge, thus able to keep an eye on their children while sharing information as first-time parents.

The feeling of social inclusion was supported by dense, diverse use. Under these conditions, social differences are not so apparent. As the proportion of diverse users increases the perceptual contrast between them diminished.

For children with observable disabilities, the reverse may be true. In other words, regardless of the diversity around them, they will still feel too intimidated to struggle with access to a particular setting such as a climbing structure. However, diversity of choice of setting or activity or level of challenge can offset this fishbowl effect. The diversity of settings and features at KTP may work in this way; however, substantiating data is not available.

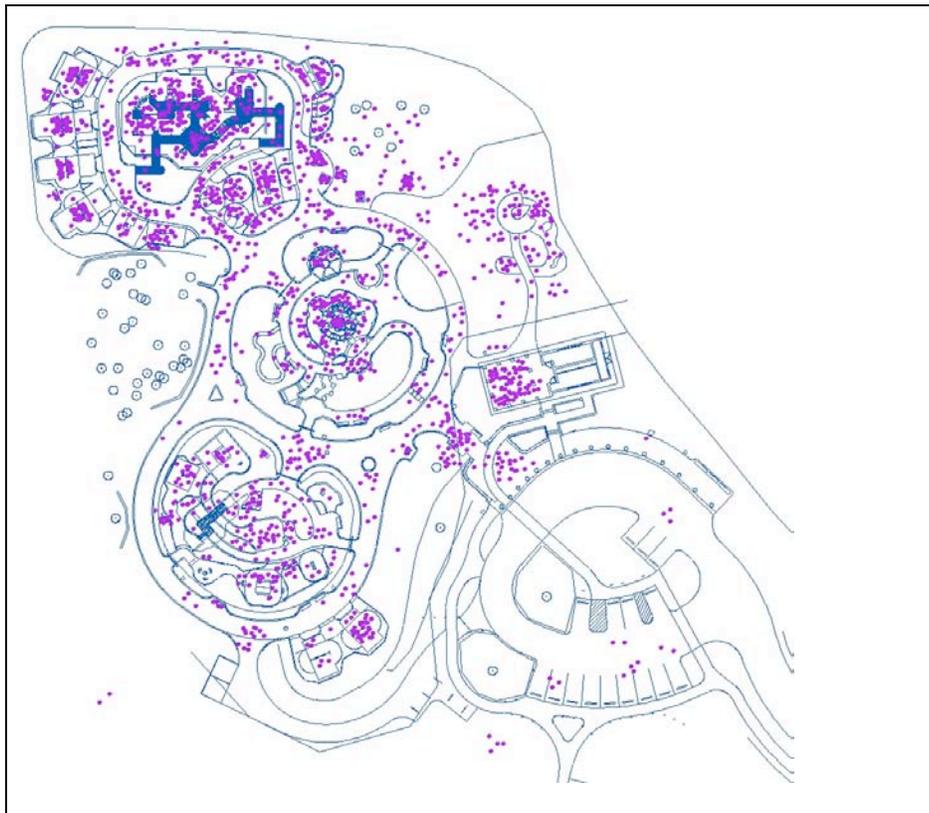
3. Distribution of use

Use of the park was not distributed evenly among all zones and settings. There were no areas devoid of use, although some areas were used less than others. Thus, if groups of users wanted to be in a calmer part of the park, the opportunity was usually available; for example, the KATEL area, the benches in the preschool family area, the conserved grove of trees, and many other quiet corners were available.

- a. Distribution by setting:** Of the seventeen settings identified in the park, just three of them (composite play structures, primary pathways, and gathering areas) accounted for more than half (55%) of the use (*see behavior map*). This finding that supports the overall goal of the park as a place designed for active play and social interaction. At one and the same time, the park is a place of movement (walking, running, climbing, rolling, hiding-and-seeking, sliding, swinging on play structures and pathways) and socializing (talking, partying, being with others, observing others) on custom-designed benches, sitting walls, picnic tables, and the covered shelter. The latter two settings were used extensively for birthday parties and other family gatherings. (call and see if there is a reservation record available). Such events are a special opportunity for cultural expression and inclusiveness. For example one Saturday afternoon a Mexican birthday celebration was held in the covered shelter, with musical accompaniment, piñata, and barbeque (which the

family brought and set up behind the shelter building). On another weekend afternoon, an extended Indian family created a space for themselves on blankets on the ground in the tree grove.

On several occasions, groups of adolescents, sometimes couples, but usually groups of two to four girls were observed “hanging out” in the park, sitting talking, swinging, walking around. For them, the park appeared as a legitimized, safe place, where they could blend in un-noticed with the variety of other user groups. Given the commonplace prejudice by the adult population against adolescents (all get tarred with the same negative brush by the small minority that cause trouble) and the resulting lack of legitimized settings in the public, urban environment, KTP serves as a significant social setting for this much maligned group.



Behavior Map

- b. Distribution by zone:** Almost half the use (45.5%) occurred in the rear zone (top, left area of behavior map) of the park containing the more horizontal, low to the ground composite structure and the swings. Not only was this zone the most popular, it also supported more intergenerational, extended family use. More

grandparents, aunts and uncles were observed in this area playing with their children.

Extended, informal observation indicated that the physical characteristics of this zone explained the attractiveness and accommodation of diverse use. The low-to-the-ground, horizontal play structure was easy to approach and access because of multiple entrances from the main path. Two were attractive ramps. Much appreciated by parents with strollers they enabled all family members to participate “within” the setting especially if the group contained older siblings. The ramps gave access to a shady gazebo with comfortable seats, within the structure. Parents with children in strollers could relax, observe from an elevated position, and participate visually and aurally in the activities of other family members.

The swings and parts of the composite play structure (ramps, slide, overhead glider) were accessible directly from the adjacent primary path, which served as a circulation spine for a variety of play options as users moved through the space.

Individual tracking data shows this behavior pattern of children darting off to play in adjacent settings, while accompanying adults move along the path. This pattern was most pronounced in the rear zone because of the larger number of adjacent play opportunities.

4. Park perceptions

Interviews indicate that visitors feel the park is safe. This was the most frequently mentioned attribute. By safe, users meant socially secure. The park was bounded with a single entrance. One mother remarked that the covered shelter was in the best position for overlooking the entrance so she could make sure her child didn’t wander out of the park. A single visible entrance is one of the primary principles of defensible design. Another parent thought the park was “wonderful, safe because everything is enclosed. You don’t have to worry about where your children are.” Another remarked that the “best feature is the separate areas for different ages.” Designation of use zones by age and setting characteristics was a key principle of the design.

Other parents reinforced the perception of safety with comment such as “easy to follow kids around,” “easy to see where kids are,” “location of equipment allows easy supervision.” Such comments reinforce the perception of safety but also, from a child’s perspective, raise issues of freedom and control.

Too much or too close parental supervision in the name of safety and security can easily result in a loss of play opportunities by children, A child who is continuously told to “be careful” or directed how to navigate or interact with a particular setting will lose the advantage of self-learning, skill building, competence, and confidence that results from free play under the child’s own volition. Of course, on the other hand, if parents feel secure they will be more inclined to encourage their children to explore, to push themselves as they engage with the environment. The latter situation was more frequently observed than parental restriction and overly control.

Features that Make the Park Attractive

- Natural feeling: Plants, flowers, trees, landscaping, smelling magnolias
- Benches
- Shade / shade in preschool area
- Concrete balls
- Hill
- Tunnel in high play structure
- Picnic tables
- Play equipment
- Diggers

Specific Features that could be Added or Changed

- Enlarge parking area.
- Add soft paving of pathways / expand soft surfaces around sand area for small children.
- Family bathroom for safety reasons.
- Acoustic play like.
- More animal habitats for bird watching.
- Water play for the summer.

- Gating and fencing each play area.
- Chain in the gates of preschool area to avoid small kids fall off.
- Add picnic tables in shady areas.
- Walking trails for walkers.
- Make better maps of the place. Advertise better.
- More shade.

CONCLUSION

High quality, family play area environments are crucial vehicles for inclusion because children’s play is such a powerful means of communication—both between children and between children and adults. High quality play environments stimulate the free flow of interaction between individuals and play settings and at the same time foster positive social interaction among users.

Ron Mace is recognized as propose of the concept of universal design, who defined it as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”

The concept includes life cycle issues of declining abilities with age. Universal design has been also placed within the broader concept of social inclusion with its focus on user groups unable to express their environmental needs because of being excluded from the processes that govern the planning, design, and management of the built environment. Adults with disabilities were one such group who struggled for years to become enfranchised, finally to succeed through the passage of the American with Disabilities Act (ADA). Although the struggle continues to participate fully in civil society, at least the law is an unequivocal ally. Many other user groups with particular environmental needs do not have this legal advantage and remain largely disenfranchised. The largest and most obvious group is people under 18. Children and adolescents cannot vote and therefore must rely on adult society to represent their environmental needs.

Social inclusion is a concept that moves beyond “integration” (people of different abilities occupying the same space) to a point where the occupants feel they are participating in a shared social and psychological world. Inclusive behaviors are those that link people

with and without disabilities in meaningful interactions or relationships—between children and between children and adults.

The concept of social inclusion can be applied to any group whose needs are excluded from decisions processes related to the planning, design, and management of the built environment. Potential additional users of built or natural resources also merit inclusion. An example is the exclusion or marginal treatment of bike riders and pedestrians in most transportation projects.

In the realm of community parks planning and design, multi-age, lifecycle and multicultural/ethnic inclusion is the main issue addressed in this POE. Universal design is viewed here as design that affords the inclusion of these groups and attention to their needs.