Planning for Intentional and Effective Places and Spaces for Children's Positive Mental Health Integrated Plan

Case Studies

Duke CENTER for CHILD and FAMILY POLICY

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B. Case Studies

The Planning for Intentional and Effective Places and Spaces for Children's Positive Mental Health project included a case study component. Five case studies greatly informed the project by bringing current, real-world perspectives to the understanding of the impact of places and spaces on children's mental health and considerations for how service providers, community leaders, funders, policymakers, and other stakeholders might invest in making progress on the issue. Each of the case studies presented here includes the following sections:

- Background and history
- Overview of the Model
- Planning and Funding
- Summary Takeaways for Project

Name	Location	Space	Key Components	Population
Blanchie Carter Discovery Park at Southern Pines Primary School	Southern Pines, NC	Primary school schoolyard	• Universal design • Focus on nature • Imaginative play	425 children, K-2nd grade
Great Beginnings Early Education Center	Lee's Summit, MO	Early education center	• Students with special needs • Family counseling	229 low-income children ages three to five
Kids Together Playground at Marla Dorrel Park	Cary, NC	Public park	• Diversity of play • Universal design • Focus on nature	Families with children ages two to twelve
Mariposa Community	Denver, CO	Low-income housing and neighborhood	• Community engagement • Transit-oriented • Improved safety and attractiveness	800 families of mixed income
Mothers' Club Family Learning Center	Pasadena, CA	Family/community center	• Two-generation learning • Caregiver mental health • Developmentally appropriate design	120 children ages six weeks to five years

Blanchie Carter Discovery Park at Southern Pines Primary School

Location: Southern Pines, NC
Space: Primary school schoolyard
Population: 425 children, K-2nd grade

Located in the center of Southern Pines, North Carolina, a small town of about 13,000, Southern Pines Primary School in the Moore County school district serves 425 children in K-2nd grade. The surrounding neighborhood is approximately 95% African American, and the population of children who attend the school is about 50% African American, 50% white.[i]

Background and History

In 1995, a group of parents at the school decided that their children deserved more than a dusty, barren, unsafe playground. Prior to renovation, the schoolyard lacked grass, trees, and adequate playground equipment. Children called it "the desert" and begged not to go outside.[ii] The parents initiated the process of transforming the area into an outdoor classroom where children could learn through play and investigation of living environments.[iii] Another goal of the rehabilitation was to improve the reputation of the school from a "former Black high school in an unsafe part of town" to a more welcoming, warm, and educational image. iv The school's immediate surroundings were so unappealing that it was difficult to bring the community into the school. For example, a local reporter refused to cover the story about the renovation because she was unwilling to drive into the neighborhood.[v]

The playground at Southern Pines Primary prior to renovation.

Part of the schoolyard after renovation, including the "purple monster" play structure and new trees.

Bruce Cunningham, a parent of two Southern Pines students, approached designer Robin Moore with an offer: "design whatever you want and we'll find a way to make it work in the budget."[vi] Moore and his team at the Natural Learning Initiative (NLI), a research and professional development unit at the College of Design at NC State University, planned the space. Cunningham led the PTA's fundraising efforts to get the project off the ground.

Model

Universal Design. The space was planned with universal design in mind, meaning that any student, regardless of developmental stage or disability, would be able to interact with it. Universal design strategies include Braille signs, a tactile map, and a beeper soccer ball.[vii] The designers included decks that are low to the ground for children who are unable to climb and play areas that range in difficulty. When the design team planned the space, one of their principles was to keep Evan in mind. At the time, Evan was a 3rd grader with physical disabilities and cognitive delays. The team worked to answer the questions: "Could Evan get to this point?" and "What would Evan do here?" When a New York Times article about the schoolyard renovation showed a picture of Evan jumping off the metal playground equipment structure, Evan's father called Cunningham

and told him, "That's the first time I've ever seen both my son's feet off the ground at the same time!"[viii]

Restoration within Nature. The schoolyard incorporates quiet places for contemplation, including a small log cabin, a few gazebos, and private areas among the plants and flowers. According to Southern Pines teacher Damita Nocton, "There's nothing that would be considered dangerous, but rather the space conveys a sense of privacy and safety. It's a safe place for children to escape." Madie Davis, a counselor for the school, uses the park during counseling sessions with troubled children "because it is a serene, peaceful environment and they are more subject to opening up."[ix]

Evan jumping off the new play structure.

Before the renovation, recess was a time of bickering and conflict among students.[x] Teachers were forced to break up fights daily. "Time out on the log" was a common punishment. Since the park was established, "time out" is so rare that the "time out log" has been repurposed as a gathering area.[xi] Now that children have opportunities for play and positive social interaction, behavior has improved markedly.

Encouraging Imaginative Play. "An equipment-based playground is to play what a paint-by-numbers is to art. You have to provide a blank canvas." This quote by Cunningham illustrates the planners' approach to the schoolyard. The schoolyard incorporates loose items like logs and giant blocks for children to move and with which they can build. There are large pieces of play equipment that have no recognizable shape, letting children imagine what they want to play. According to Cunningham, playgrounds are usually created by adults who create what they think children will enjoy: bright colors and familiar shapes. This schoolyard's philosophy is to give children a blank canvas on which their imaginations can build, thus colors are not overwhelming or intense and shapes are abstract. Just as children learn best using different methods, children also have different preferences for play. The playground incorporates diversity of space for both the child who enjoys quietly picking flowers and the youngster who enjoys running and jumping.

Not all play equipment is bought from a manufacturer. These natural fixtures encourage imaginative play.

Environmental Education. Southern Pines Primary teachers use the schoolyard to teach about the natural environment, through the natural environment, and in the natural environment.[xii] For example, students and their teachers conduct supervised, controlled burns of the longleaf pine forest to learn about restoring habitats of local endangered species and encouraging the growth of native vegetation. Teachers also use the schoolyard to teach lessons in core content areas from science and math to reading and social studies. When they first built the schoolyard, the school provided training for teachers in how to use the outdoors for lessons in experiential science. Nocton expressed interest in additional training to support veteran Southern Pines teachers as well as teachers who are newer to the school.

Physical Health. The schoolwide Walking Club walks the trails throughout the schoolyard for half an hour before school starts each day.[xiii] Staff encourage children to eat breakfast at home or at school prior to joining the session and encourage participation no matter the fitness level of the individual. The schoolyard incorporates a working vegetable garden for lessons about nutrition and healthy eating. Furthermore, many students experience high levels of violence in their neighborhoods and do not have safe outside places for play. According to Nocton, "This park is an oasis for them and they love being able to go outdoors."

Planning and Funding

Input from School Stakeholders. While the core design team consisted of Moore/NLI, Cunningham, and the school's principal, Blanchie Carter, the team sought input from teachers, students, and children as well. The team reached out to all parents and teachers, and received volunteers and support in return. In addition to the PTA, which was continuously involved in the funding and planning of the project, 15-20 other parents helped build parts of the playground and participated in the planning process. The design team led a workshop with students to identify their ideal playground setups. Children submitted designs of pony barns, Powerade fountains, and swimming pools. Although not all the dream designs could be accommodated, the idea for the stream and wetlands area came from a child's initial swimming pool concept. The team also met with a core group of about six teachers and brainstormed by walking around the schoolyard. According to Cunningham, "We didn't want to impose on teachers and just invited the teachers to participate if they chose to."

Deciding Whether to Fence. At the outset, the team had to ask themselves the age-old playground question: "to fence or not to fence?"[xiv]? On the one hand, the team wanted the schoolyard to be a community playground open for all to use, but on the other hand, fencing protects the children who attend the school by providing some containment during recess. The school ended up fencing about 75% of the schoolyard, leaving large accessible entrances from both the schoolyard and the public parking lot. The school partnered with a nearby community park and, as a community service, the Blanchie Carter Discovery Park stays open to the public during non-school hours.[xv] The community embraces the park, using it for church gatherings, group walks, and family reunions.[xvi]

Grant Funding. Cunningham and other parent volunteers raised over $150,000 through donations from the community, businesses, civic organizations, and foundations.[xvii] They opted not to use traditional bake sales and raffles because of how labor-intensive those strategies are, often with little return. Instead, the families pursued business donations and foundation grants. They found medium to small foundations that had more flexible guidelines and less burdensome reporting requirements than other potential source. For example, universal design was a common interest that Goodwill shared with the playground planners, allowing Cunningham to raise $10,000 as the result of a conversation with the president of Goodwill.

Local Funding Sources. The Moore County School Board granted matching funds for the schoolyard project: $1 for every $3 raised. This led to $10,000 from the school board as the result of $30,000 raised. Students gave a presentation to the Town Council asking for support. The Council granted $25,000. Sand Hills Turf, a local business, sold the school a soccer field at cost. In return, the PTA gave Sand Hills Turf the opportunity to use their schoolyard as a marketing pitch for local golf courses. They showed golf course supervisors they could lay down a soccer field in three hours.

Volunteer Labor. Cunningham estimates that the schoolyard utilized $100,000-$150,000 in donated services in addition to the $150,000 raised by the PTA. As a criminal defense lawyer, he had connections with local government officials at the courthouse and employees of the correctional system to bring volunteers to the school. In North Carolina, anyone convicted of driving under the influence is required to give service hours. Individuals in this situation provided the schoolyard with the services of painters, roofers, and builders. The well, gazebos, and play structure construction provided practical experience to inmates at the local jail and had minimal cost to the school.

Children, teachers, and volunteers collaborated to build the schoolyard's log cabin, a chance to learn not only about tools and engineering, but also about North Carolina's history.

The Master Plan. Designing the master plan was the first step. The master plan included aspects of the schoolyard that would not be completed for years but it was crucial to incorporate them at the outset in order to make them possible in the future. For example, there are plans for a stage, an amphitheater, and a stream with a bridge. Although the stream does not exist yet, the team made sure that plants and trees were placed such that the future stream would go through them. The master plan helped the team prioritize change items in the timeline. For example, the first $20,000 of raised funds went to pay NLI for Moore's design team and to drill a well. The well was a primary component of the Master Plan because it would enable the watering of plants and trees in the schoolyard.

The Master Plan also had to take into consideration that the schoolyard would be in use the entire time it was under construction. The design team deliberately started with construction of elements that could accommodate many children, such as the hill, soccer field, and gazebos. According to Cunningham, "We didn't want the first thing we built to be swing sets, for example, with several hundred children trying to use them all at the same time."

Major Obstacles. Funding and parental patience were two major obstacles at the outset. Funding was difficult because potential funders often consider playgrounds secondary priorities to other components of a school. Parental patience was a challenge because securing funding took a long time and there were no immediate changes to the schoolyard. The first addition was a well, not something with which children could play. Upon reflection, some of the planning leaders believe that providing parents with a timeline and master plan from the beginning may have been helpful to quell their frustrations. According to Cunningham, "I would have probably put some tangible designs out there earlier. We spent many months planning and parents got impatient."

Summary Takeaways for the Planning for Intentional and Effective Places and Spaces for Children's Positive Mental Health project

Blanchie Carter Discovery Park addresses the following strategies from the project's Best Practice Indicator framework:

Best Practice Indicator	Implementation at Blanchie Carter Discovery Park
Use of nature	Designed and built the playground to incorporate nature; use the space for environmental education
Diversity of space	The playground has spaces for all kinds of activity, from the gazebo, to the garden, to the play structure
Safety	Fenced about 75% of the schoolyard; incorporated fall zones
Accessibility	Designed and built for universal access to play structures/ equipment and ground surfaces
Sustainability	PTA continues to maintain and manage parts of the playground

Additional takeaways and lessons learned include:

- It is helpful to meet with school maintenance coordinators before meeting with the school board about changes you want to make. According to Cunningham, school maintenance staff are used to PTAs building at as low a cost as possible, which can result in liability issues for the school and school district. "They've seen PTAs start projects and never finish them. Since that makes more work for them, they'll fight the projects unless you approach them first and let them know your plan."
- There is a fine line between challenge and hazard. The planners had to change components of the schoolyard that did not work for the children. They had to take out the glider track once they learned that the children weren't strong enough to hold themselves up. Another component that required change was a fire pole that children used to get off the play structure. When a child broke his arm the first week after installation, the designers replaced the pole with two corkscrew ladders. Planning teams should be prepared to make changes to address safety.
- Fall surfaces have huge impacts on safety and other aspects of the schoolyard. The design team tried woodchips, sand, tire scraps, and a springy rubber play surface. Sand wears out equipment fast and invites "cat issues." Woodchips would migrate and decompose within three years. Tires smell. And the rubber play surface was too expensive and sterile. They chose pea gravel in order to avoid the difficulties associated with the other surfaces.

Interviewees for this case

- Bruce Cunningham, parent and volunteer (phone interview by Sachi Takahashi-Rial on August 6, 2014)
- Damita Nocton, teacher at the school for over 20 years (phone interview by Cara McClain on August 8, 2014)

Great Beginnings Early Education Center

Location: Lee's Summit, MO
Space: Early education center
Population: 229 children aged 3-5 and their parents

Located in Lee's Summit, Missouri, Great Beginnings is an early childhood education center and a Parents as Teachers program hub. Programming includes early education, family and parent counseling, and care for students with special needs.

Background and History

The Lee's Summit Educational Foundation is a nonprofit organization dedicated to raising private funds to help support programs within the Lee's Summit R-7 School District. In 2001, an anonymous donor approached the foundation with a gift of $2 million if the district and foundation could match it. The foundation played a crucial role in fundraising and helping design the new building. The effort succeeded, as described below.

Early childhood education in Lee's Summit had been delivered at two buildings, one on either side of town, and both in disrepair. Neither early childhood center had developmental therapy services (speech/language, physical, occupational therapy) available within their buildings. Children with special needs were bussed from school to therapy and back, missing valuable educational time while in transit. For example, one three-year-old child had already had five surgeries. School staff would transport her out of the school in her wheelchair, covering her up from the wind and rain, and do the same on the way back, a time consuming process. A new building would be a safe haven for her, a place where she could both learn and receive the therapy she needed.

Great Beginnings Early Education Center, managed by the Lee's Summit School District, was completed in June 2005 and serves 229 children.[xviii] The newly constructed facility doubled the amount of space previously available for early childhood education.

Great Beginnings houses three main programs. The Title I Early Childhood Program serves four and five year olds. The Early Childhood Special Education Preschool Program serves children aged three to five. In order to qualify for the special education program, children complete a process of screening and evaluation. Special education services include speech, language, occupational therapy, physical therapy, vision, and hearing. Both programs are provided free of charge to families and utilize Head Start and Title I funds.xix Transportation is also provided for all children.[xx] Students attend school on Monday, Tuesday, Thursday, and Friday with a morning session from 9 a.m. - 12 p.m. and an afternoon session from 1 p.m. – 4 p.m.[xxi]

Building materials blend in with park environment using stone, brick, wood beams, and natural colors. Tall front canopy defines point of entry.

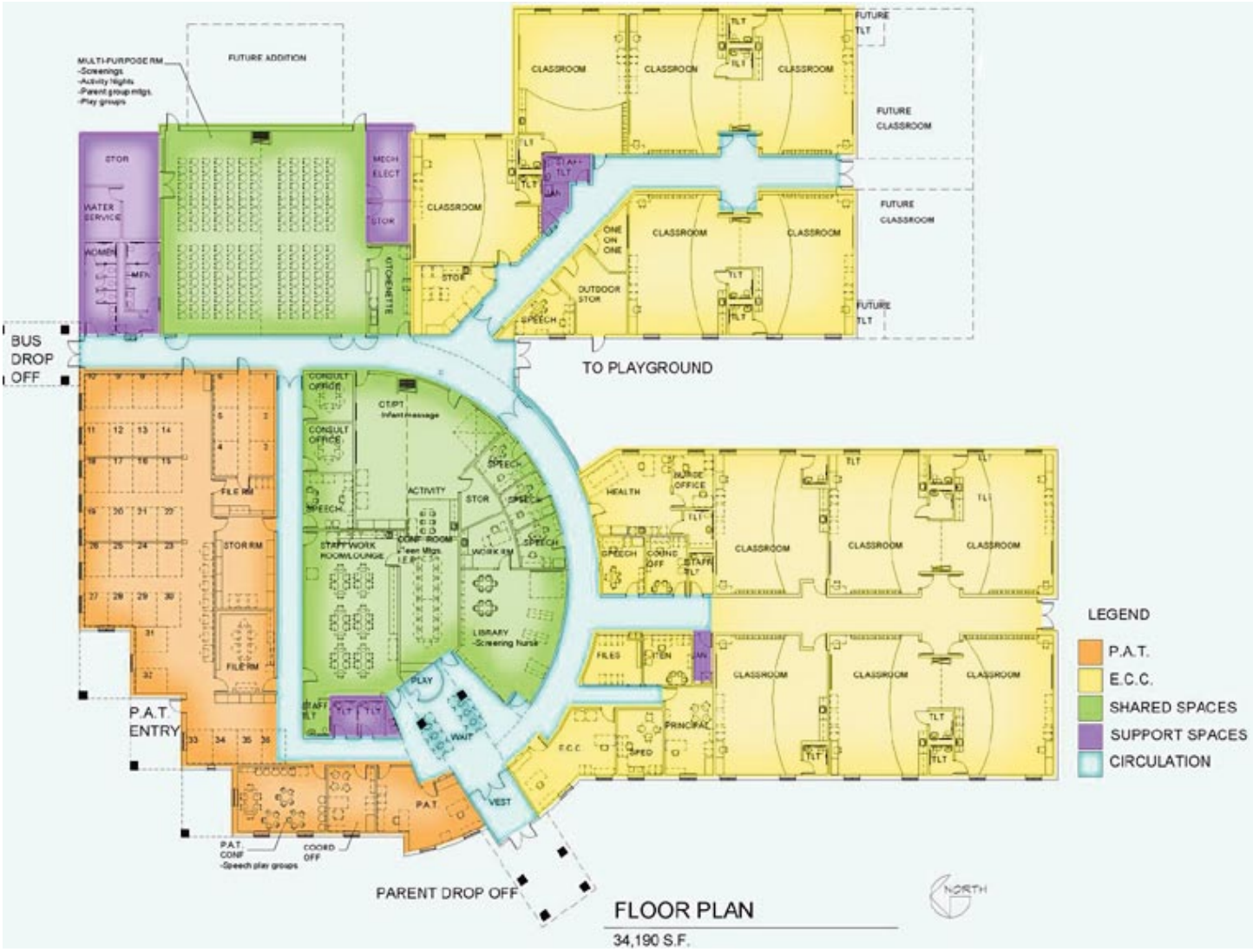
The third program in the building is the Parents as Teachers (PAT) program. PAT is a national program that features home/community/school partnerships that support parents in their parenting role. It is a free, voluntary program that provides personal visits from certified parent educators who are trained in early childhood development. The early education center functions separately from the PAT program, but teachers and PAT staff collaborate to help the children they both serve.

There are twelve classrooms for physically and developmentally delayed children in the early childhood program. In another part of the building, the PAT program has 36 individual work stations for parent educators in an open work space that encourages collaboration.

Model

Developmentally Appropriate Design. The Great Beginnings Center incorporates aspects that benefit children's (and adults') mental health. The 34,200 square-foot building is a "cohesive facility harmoniously blended into a park setting," providing diverse spaces for children and caregivers.[xxii]

The main spatial features are an entry lobby with high windows, a large multi-purpose room, offices, and therapy spaces. The multi-purpose space is used for art, fitness, music, performance, science, and life skills. There is also a



The floor plan has 2 classroom wings with curved corridor surrounding support spaces for Early Childhood and Parents as Teachers Programs. Multi-purpose Room used by students/staff and community.

library, a rare feature for early childhood centers. The kitchen and the gym are in the back of the building. There are both indoor and outdoor play areas. Through interviews and visits to other early childhood education centers, the designers were committed to large spaces for motor development in conjunction with small rooms for various therapies.

The early childhood education classrooms include sections of tables and chairs for different activities. Each classroom has a viewing window so that parents and staff can observe without interrupting.

A key design aspect is the use of shapes and colors to promote wayfinding for students. Wayfinding takes into account that while children are too young to read, they can navigate the building by recognizing the "circle hallway" or the "blue classroom." Hallways are painted different colors, have floor tiles of varying shapes, and include low-hanging bulletin boards so children can see their work displayed. The design team used muted tones so as to not overstimulate more sensitive children. Additionally, the design team prioritized natural ventilation and full-spectrum lighting, aspects that contribute to increased mental health.[xxiii] Every classroom has a source of natural light.

The building contains a large aquarium in the entry waiting area. According to Sheryl Franke, director of the Lee's Summit Educational Foundation and part of the planning and development team for the new building, young children waiting for their therapy love to watch the fish. The fish tank engages children who are shy or scared to talk. "The fish tank gets them so excited that they'll talk about the fish, and it helps when they go into therapy."[xxiv]

Universal Design Playground. According to Franke, because children learn through play, the team designed the playground to be an accessible extension of the classroom. The designers planned the playground with universal design in mind, meaning that any student, regardless of developmental stage or disability, would be able to interact with it. For example, they installed swings that have discs for seats. The discs provide mobility for students who could not maneuver themselves into a traditional seat, but can bellyflop onto the disc. The sports turf is a cushioned surface, but it is also wheelchair accessible.

Every piece of play equipment has a specific purpose for muscle growth or development.[xxv] For example, the playground includes both movable pieces and stationary ones. One jungle gym consists of a tube with handles on the inside, so students pull themselves along. This piece was included to help build upper body strength.

The outdoor space also incorporates colors to promote wayfinding. The colors of the ground surface move from an earth tone to a grass color to an area that is blue and contains water play with buckets and hoses.

Small, low door windows for children to look in or out of classrooms. Colorful fabric wrapped tackboards display student art work.

Highly-trained and Collaborative Staff. Great Beginnings' professional staff has an average of 14.5 years of experience and 76% have advanced degrees.[xxvi] Most PAT staff members have a teaching degree, and all have received PAT training. All teachers are certified in both early childhood special education and early childhood education.

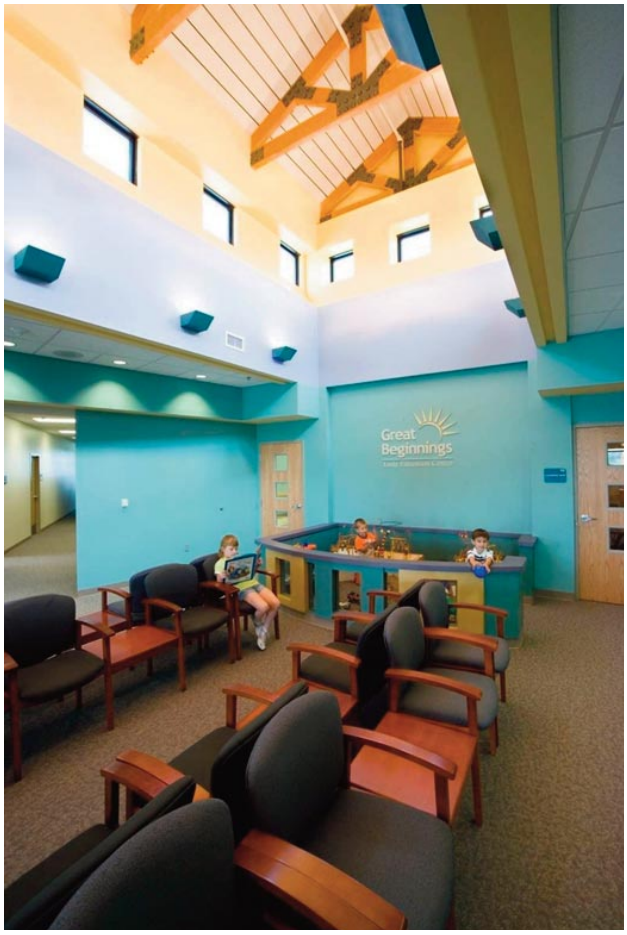
PAT staff and teachers who serve the same children communicate and strategize together. For example, the teacher may notice that a family often forgets to check a child's backpack at home. The PAT parent educator will work with the parents to develop routines around the backpack check.[xxvii] Teaching and PAT staff also use and promote similar strategies to provide consistency in learning and discipline between home and school. For example, teachers use visual schedules at school with children. Visual schedules use pictures to tell children what activities will happen, and in what order. Parent educators then work with families to use visual schedules at home. This allows

lessons from school to carry over into the home, and families create healthy habits that stem from school programming.

Caring Rituals. Staff focus on creating a safe and loving environment. Great Beginnings promotes many "I love you" rituals, which help children transition to the center and feel welcomed. Staff greet every student in the morning, bending to the child's level and acknowledging him or her. Students also greet their peers each morning. One student will have the job of greeting peers and can give a hug, a high five, or a friendly hello.

Great Beginnings contains "safe spots" for children who are upset. The space includes images of children with their families, pillows, and feeling buddies (stuffed gingerbread men with different feelings emoted on their faces). The child identifies his emotions from the buddies' faces, and then a teacher processes with the child, asking questions such as: "What would make you happy?" or "How can we change the situation?"[xxviii]

Conscious Discipline. Conscious Discipline is a classroom management program and a social-emotional curriculum.[xxix] It is based on studies of the brain, child development research, and developmentally appropriate practices.[xxx] Conscious Discipline is designed to make changes in the lives of adults first. The adults, in turn, change the lives of children. The approach is a way of organizing schools and classrooms around the concept of a School Family. Each member of the family—both adult and child—learns the skills needed to successfully manage life tasks such as learning, forming relationships, communicating effectively, being sensitive to others' needs and getting along with others.[xxxi]



Tall clerestory windows in lobby/ waiting room with colorful interiors create space with natural lighting.

The staff has Conscious Discipline trainings multiple times per year. Over the course of the year, time in professional development is equally split between academics and social-emotional development. According to Kerry Boehm, Director of Great Beginnings, learning cannot happen until children feel emotionally safe: "Each child is unique. What does this child need in order to be a successful learner?"[xxxii] Great Beginnings emphasizes "learning to learn" behaviors.

Intentional Inclusion of Parents. Great Beginnings intentionally includes parents in a variety of ways. PAT staff conduct home visits to coach parents on becoming more "educational" at home. PAT educators help parents recognize and advance their children's developmental capabilities. PAT also provides developmental screenings, parent group meetings, teen parent groups, and specialized programs for children with disabilities, ESL families, and single parent households.[xxxiii] In 2013, 34 parent educators made almost 10,000 family visits.

Great Beginnings also seeks to bring families into the building frequently through various events. For example, Conscious Discipline trainings for parents teach them how to use the same discipline principles that teachers use. Parents "make and take" tools to help them implement conscious discipline at home (e.g., rain calming bottles, sock beanbags, rolling dice with calming techniques on each surface).[xxxiv] Great Beginnings' parent engagement programming aims to connect parents with resources. As another example, the library will come to the center to allow families to sign up for library cards.

Great Beginnings uses field trips to involve parents as well. For example, the children have an annual field trip to the Paradise Park edutainment center, an indoor/outdoor discovery play space. According to Boehm, "It's a day where our families and children can go free of charge, so we always have a great turnout. We have teachers attend as well. The teachers ask us, 'What are we going to do there?' We say, 'You'll figure it out.' And they do. It's when you see a parent standing off to the side not playing with their child because they don't know how. So the teachers help parents play with their children."

Great Beginnings provides many staff resources to families, including a social worker and an autism and behavior specialist. These resources can help families see the reasons behind behaviors and better serve their child.

There is regular formal communication between home and school. Teachers send home weekly newsletters. Great Beginnings sends families weekly activities to complete with their children.[xxxv] Teachers celebrate the children's completed activities when children bring in documentation of what they have done with their family members.

For families who are worried about meeting their children's basic needs, many find it difficult to take time to enjoy parenthood. Great Beginnings' resources and fun events aim to bring joy into parenting and to help parents learn how to play and interact with their child.[xxxvi]

Partners and External Supports. In order to provide such extensive and varied resources, Great Beginnings works with many external partners, including the Greater Lee's Summit Healthcare Foundation and Lee's Summit Medical Center.[xxxvii] The center works with the local parks and recreation department to use the nearby amphitheater for big events. Great Beginnings provides professional development for other local early education centers and daycares. As one interviewee explained, "We know that we serve a minority of children in this area, and we want to provide as many services as we can for as many children as possible."[xxxviii]

Connecting classrooms allows teachers to monitor a second classroom or to have shared activities.

Planning and Funding

Participatory Design Process. Input on the design came from principals of both programs (early education and PAT), staff, and parents. The design team conducted individual and group meetings to solicit feedback.[xxxix] The design team also visited many early childhood education centers and spoke with their directors, teachers, and parents, asking, "What do you love about your facility? What do you wish were different?" These conversations occurred before the team approached the architect. These upfront conversations produced a clear list of non-negotiables, enabling the team to prioritize later. Having a shared vision for the use of the facility and the purpose of each component was central to the design success.

Funding Process. The private anonymous donation encouraged the Lee's Summit School District to look into the possibility of a much-needed new facility. The donation was about $2 million, and the Lee's Summit Educational Foundation raised $2 million in private donations. The city issued $2 million in bonds to cover the last third of the total cost of construction. The city created a lease agreement to place the building on park land.[xl]

The fundraising process took a grassroots approach.[xli] An effective fundraising strategy was to hold intimate gatherings in people's homes. Franke and her team "went on the road and told the story," showing images of current families and visions for the future, emphasizing how the new building would help meet a growth need. For example, the fundraising individual would pass around a picture of the early childhood education center's library, which was a pile of books in a bathtub. Often, parents and children who used early childhood services would come along to give testimonials. The donors heard individual children's stories and saw their pictures, compelling them to give to the effort. The planning team created various naming opportunities, including a donor wall around the aquarium.[xlii]

Challenges. The project faced several key challenges. First, many people did not understand early childhood education, particularly the scope of the work and the variety of services provided. The lack of understanding was a fundraising challenge. At one fundraising event, a guest approached Franke after her presentation. He told her, "I had no idea early childhood education centers do so much. I thought it was a babysitting service."[xliii] The leaders viewed their marketing campaign as an educational campaign as well.

A second challenge was that no one involved had experience with large capital campaigns ("It was pretty unheard of for a public school to do a capital campaign").[xliv] They struggled with how to run a capital campaign, procuring the necessary infrastructure and marketing materials, and creating appealing approaches for fundraising. In the end, they decided to have two couples serve as campaign leaders. The couples were well-known in the community; one was older (the "grandparents' generation") and the other had young children and could reach out to young families.[xlv]

Finally, a current challenge is that Great Beginnings has already outgrown the facility, and now uses satellite classrooms in other facilities.

Summary Takeaways for the Planning for Intentional and Effective Places and Spaces for Children's Positive Mental Health project

Great Beginnings addresses the following strategies from the project'sBest Practice Indicator framework:

Best Practice Indicator	Implementation at Blanchie Carter Discovery Park
Supporting positive interactions	Use of Conscious Discipline principles; Parents as Teachers home visits and coaching; frequent parent engagement programming and trainings
Diversity of space	Playground area, large multi-purpose room, safe space; housing multiple programs under one roof; housing services for students with special needs in the same building as their education center
Accessibility	Playground designed to be universally accessible; transportation provided for all children
Sustainability	Utilize Head Start and Title I funds to provide early education services

Additional takeaways and lessons learned include:

- In the fundraising process, it may be helpful to use stories and images to tell a compelling narrative and inform the audience about the importance and effectiveness of the program. Many audience members may not understand the services the organization offers or the value of those services.
- It is useful to include many different voices in the planning process. Results of this process could include a list of non-negotiables to facilitate later planning.
- Co-locating parent services and child services in one building creates consistency between home and school. Co-

locating educational and health services in one building gives children and teachers more time for learning.

- Many of the program's practices are designed for parents to "take home" and replicate, whether specific activities or exercises, or interaction with the child.

Interviewees for this case

- Sheryl Franke, Director of the Lee's Summit Educational Foundation (phone interview by Sachi Takahashi-Rial on October 23, 2014)
- Kerry Boehm, Director of Great Beginnings (phone interview by Sachi Takahashi-Rial on September 18, 2014)

Kids Together Playground at Marla Dorrel Park

Location: Cary, NC
Space: Public park
Population: Primarily families from Cary with children ages 2 to 12

Located in Cary, NC, Kids Together Playground at Marla Dorrel Park is a universally-designed playground that provides children with a diversity of play opportunities. The park was completed in 2000 through a partnership with the non-profit organization Kids Together, Inc. and the Town of Cary.

Background and History

In 1993, Kristin Holcombe and Helen Rittelmeyer, then ages 7 and 6, had the idea to create a playground in Cary that would be comfortable, inviting, and fun for their younger sisters who had special needs.[xlvi] The girls shared their idea with Bruce Brown, a member of Cary's Parks and Recreation Advisory Board. The Board embraced the idea and began to plan Cary's universally-accessible playground. In 1994, the Town began to design the playground in collaboration with Robin Moore, an architect and professor at the Natural Learning Initiative (NLI), a research and professional development unit at the College of Design at NC State University.[xlvii] The non-profit Kids Together, Inc. officially formed in 1995 to support the playground project through fundraising and awareness campaigns.

Kids Together Playground (KTP) at Marla Dorrel Park opened in June 2000. The playground and park are owned and maintained by the Town of Cary. The community nonprofit, Kids Together, Inc., remains involved in the management, governance, and financing of the space. Kids Together, Inc. continues to raise money for improvements to the park, including a community build for a new play structure in the winter and spring of 2014 and a misting

This map of Kids Together Playground shows the various play zones.

garden scheduled for 2015. KTP is open seven days a week and draws families from around Cary as well as many playgroups, including the local YMCA and preschools.[xlviii] Rebecca Jackson, a board member at Kids Together, Inc. and a parent of children who play at the park, stated that "The first parking lot is usually full… That's a measure of how busy the park usually is."[xlix]

Model

Diversity of Play Opportunities. Diverse play settings are important for meeting individual and developmental needs, and for fulfilling preferences relating to learning styles, personality types, friendship patterns, and culture.[l] KTP includes three play zones: preschool play, school age discovery, and school age active play. Each zone incorporates a variety of elements to meet the diverse needs of its users. Children desiring more motion and activity can use the swings or the climbing structure that incorporates varying difficulty levels. Children hoping for less action can use the park's quieter areas for watching insects or playing alone. The playground incorporates diversity of texture and material with its sand table, sand river, sand scoopers, and water sources in the sand play areas. One of KTP's most popular and recognizable features is its climbable dragon sculpture (named KATAL for Kids Are Together At Last). While the playground incorporates a diversity of spaces, it remains easy to navigate for children and families.

The park incorporates various surfaces and textures with sand areas and climbing structures surrounded by trees.

A behavior mapping study by Robin Moore and Nilda Cosco, director of programs at NLI, found that children used the following areas most frequently: composite structures (e.g., play structures that combine stairs, climbers, slides, etc.), swings, pathways, gathering areas, open lawns, and sand areas.[li] According to Jackson, "My kids tend to wander back and forth between group play and then quieter play." She noted that the park was intentionally designed so that, "regardless of the age and stage that your kids are at, all children can engage with the playground."[lii]

Sensory Stimulation. Sensory and motor interaction with the world builds the foundation of a child's development.[liii] Studies have even explored links between atypical behavior and sensory deficits (smell, touch, vision, hearing, and balance).[liv] KTP stimulates all senses and all body parts, facilitating cognitive development and positive mental health.lv For example, KTP utilizes a variety of surfacing to give children textural cues as they move from sand to grass to concrete.[lvi] Natural landscaping stimulates children's senses as they come in contact with leaves and plants of different colors, textures, and scents. The playground also integrates balance and motion pieces (e.g., a bridge which moves when children jump or walk on it), building muscle tone, strength, and coordination.[lvii]

Universal Design. The playground's focus on universal design ensures accessibility for families and children with special needs. Features that support universal design include the wheelchair-accessible sand table and benches, integrated ramps, winding paths, and chair swings that provide additional support. Spacious restrooms provide room for wheelchairs and strollers.[lviii]

Children with special needs are not left out of the balance and motion stimulation that exists for their peers. KTP includes a wide bench area that wobbles, a better fit for a child who over-processes sensory information than a narrow balance beam. The bench feels more stable, but it still engages the child's brain by moving and providing sensory

input. The same principle applies for the swings that cradle a child's whole body and for the slides that contain different rolling parts.

Restoration in Nature. KTP integrates manufactured play equipment and the living landscape, including nature in the form of flowers, plants, trees, surface materials, and animals. According to Marla Dorrel, founder and former president of Kids Together, Inc., the park gives individuals a feeling of "communing with nature." Jackson described how nature contributed to the relaxing feeling in the park. While some busy playgrounds can feel chaotic, KTP's inclusion of nature contributes to its pleasant atmosphere, even when many families are playing there.

Community Space. Moore and Cosco found that KTP attracts "multi-generational, multicultural users seeking satisfying family recreation experiences."[lix] Many community groups, including child care centers, special education programs, and summer camps use the park.[lx] It acts as a gathering place where families can meet other families. The space accommodates parents with shaded benches, a shaded picnic area, and a picnic shelter. The play structures are sized to allow parents to interact there as well, allowing for increased access for children with mobility needs that may require adult intervention to enter or use the space. Jackson commented that the bathrooms are clean and welcoming. Finally, the park incorporates art throughout, giving it a fun and lighthearted feeling. Cary Visual Art, another community group, commissioned and funded KTP's artwork, including the KATAL dragon sculpture, leaf-shaped benches, and interactive talk tube benches (whisper into one tube and a person on the other end can hear you).[lxi]

The playground integrates nature with pathways surrounded by a variety of textured plants, flowers, and trees.

Safety. The park manages to remain contained while still giving children a sense of freedom. Parents are able to supervise their children from afar, letting them climb and explore independently. The inclusion of natural elements and the flow of the playground ensure that children and families do not feel trapped or fenced in. The only fenced area is that for preschool play. Across the playground, as structures get higher, there is a corresponding increase in the softness of the surface underneath them.

Additionally, the equipment at KTP is less likely to overheat than equipment at many other parks. KTP's equipment is lightly colored and the surrounding trees provide extensive shade.[lxii] Hot North Carolina afternoons can overheat equipment and send people inside but children and families at KTP can stay longer into the afternoon.

Planning and Funding

Partnership with the Town. The playground was built through a partnership between Kids Together, Inc. and the Town of Cary. A key to the success of this relationship was communication and agreement between both parties about the design of the park. The agreement also freed the nonprofit from managing contractual issues. The challenge was coordinating with the town's budget cycle so that conceptual plans and design drawings were ready at the appropriate times. Kids Together, Inc. had to prove that the community wanted the park. Once there was momentum, the town council supported the project.

Funding Process. The project cost $850,000, excluding ancillary site work but including the playground, parking lots, culverts across the creek, and basketball courts.[lxiii] Kids Together, Inc. raised approximately $300,000 and the Town of Cary provided the rest.[lxiv] Another group, Cary Visual Art, did the fundraising for the playground artwork.[lxv] The park was built on land that had been donated to the town by the developer of a nearby subdivision. Although the land was not easily developed (e.g., an obtrusive creek, extensive poison ivy, swampy), the community was invested in the site and in moving forward.[lxvi]

The KATAL dragon sculpture.

For six years, hundreds of children and adults worked to raise funds and build public awareness for what would become Kids Together Park.[lxvii] Holcombe and Rittelmeyer organized neighborhood children under the banner "Kids Together." The children worked with adults to raise money through various fundraising activities, including a Small Change Drive, a Beanie Baby Auction and a concession booth at Cary's Spring Daze and Lazy Daze festivals. According to Dorrel, "Those kids were the best thing that happened to the project in terms of public relations and fundraising."[lxviii]

Input from Stakeholders. The playground design process involved input from many stakeholders. The Town of Cary managed the design process and construction in conjunction with Moore. Moore was instrumental in developing the park, particularly in planning to integrate the natural environment through landscaping.

The design process began with a day-long design workshop with adults and children discussing and drawing their ideas for the park.[lxix] From there, Moore and Dorrel visited local agencies and specialists that work with children with special needs. They sought design input from experts across the community, from the Tammy Lynn Center for Developmental Disabilities and Lucy Daniels Center to the Center for Universal Design at NC State's College of Design.

Challenges. The project faced several key challenges. First, fundraising was a difficult and lengthy process. According to Dorrel, "Probably three years in a row, I was quoted in the newspaper saying 'I think we'll break ground next year.'"[lxx] Early fundraising was especially challenging because potential donors wanted to see an example of a similar park, but none existed. Because people normally think of a playground as a flat piece of land with equipment, it was difficult to explain the concept of the project and to get individuals on board. The majority of fundraising was in very small amounts ($100 or $1,000), and the largest contribution was less than $25,000. Dorrel explained that although the process felt painfully slow, it invested the community in the outcome of the project. This investment paid off as over 100 adult volunteers assisted with the installation of equipment on the playground and more volunteers – families, scout troops, and school classes– participated in Planting Days, installing hundreds of liriope plants and daylilies.[lxxi]

Fundraising was also difficult because donors wanted to see their names attached to their contributions. Individuals expressed interest in having their names displayed on parts of the playground, for example on benches or sitting areas. Yet most of the project cost was in the landscaping and fill dirt, which people were less enthusiastic about funding. To meet donors' requests and to recognize their contributions, the playground has an entry plaza with engraved slabs to recognize donors.[lxxii] There are also bricks going all the way around the park that can still be engraved with names as people make ongoing contributions. Collecting data about the number of people using the park is difficult, which can be a challenge when approaching funders.

Maintenance posed another challenge. Because KTP is so different from a traditional playground, Kids Together, Inc. had to give more detailed instructions on how to maintain it. For example, because it is impossible to keep sand contained, sand began to threaten accessibility in certain areas of the playground. Instead of removing the misplaced sand, maintenance staff filled in additional sand in the areas where it had travelled. In order to avoid such miscommunication, Kids Together, Inc. paid to develop a maintenance manual for the playground's equipment and art. The manual also included plant maintenance and a list of approved plants that had been previously tested for toxicity and chosen with regards to safety and diversity. The manual is crucial for maintaining the integrity of the landscape plan over time and is an example of how the nonprofit remains highly involved in the planning and maintenance of the park.

Extensive shade and lightly-colored equipment keep the structures cool even in hot North Carolina summers.

Lastly, the park lacks accessibility for families without cars. Almost everyone arrives by car or on foot from the nearby neighborhood, and there are few public transportation options.[lxxiii] However, the Town of Cary has plans for expanding public transportation generally, which may help with the park's transportation issues as well.

Ongoing Improvements. Five years after the park opened, the design team, staff, and board members met to determine needed park improvements. The group agreed that KTP needed a misting water feature to prevent children from overheating in the summertime. Fundraising is underway for a misting station.[lxxiv] The park also uses its Facebook page as a forum for parents with comments and concerns. Dorrel monitors the page and responds to concerns (e.g., after a parent noticed a copperhead snake).[lxxv]

Summary Takeaways for the Planning for Intentional and Effective Places and Spaces for Children's Positive Mental Health project

Kids Together Playground addresses the following strategies from the project's Best Practice Indicator framework:

Best Practice Indicator	Implementation at Blanchie Carter Discovery Park
Use of nature	Designed and built the park to incorporate nature
Diversity of space	The playground has spaces for all kinds of activity: composite structures, swings, pathways, gathering areas, open lawns, and sand areas; equipment and nature stimulate all senses and all body parts
Safety	The park uses nature to remain contained while still giving children a sense of freedom; shade and lighter-colored equipment decrease the likelihood of overheating
Accessibility	Designed and built for universal access to play structures/ equipment, ground surfaces, pathways, benches, and restrooms
Sustainability	Kids Together, Inc. created detailed instructions for the Town of Cary on how to maintain the park; collaborative partnership with the Town from the beginning; Kids Together, Inc. monitors park and fundraises for additional needs

Additional takeaways and lessons learned include:

- Equipment manufacturers may not have wide offerings for accessible play structures. According to Dorrel, "You look through their offerings and notice that children in wheelchairs can't access the parts that are the most fun." The design team worked with equipment manufacturers to tweak the structure design and ensure inclusivity.
- While some nonprofits plan and implement community projects on their own and then give the project to the town later, Dorrel is pleased that KTP was collaborative from the start. Since the town would be the entity maintaining the park, town stakeholders should have input into the design process from the beginning.
- Nature integration is the key component that makes the rest of the park's accomplishments possible, seamlessly combining aesthetics, diversity of play, sensory stimulation, universal design, safety, and a community space.

Interviewees for this case

- Marla Dorrel, Founder and Former President of Kids Together, Inc., (phone interview by Sachi Takahashi-Rial on August 11, 2014)
- Rebecca Jackson, Board of Directors for Kids Together, Inc., Center Director at Brain Balance Achievement Center of Cary, and parent of two children who regularly play at the Kids Together Playground (phone interview by Sachi Takahashi-Rial on September 1, 2014)

Mariposa District and Housing Development

Location: Denver, CO
Space: Low-income Housing Development
Population: Local residents of varying backgrounds and incomes

Located in Denver, CO, Mariposa is an innovative housing development owned and managed by the Denver Housing Authority (DHA). The development combines housing types for a range of income levels with sustainable designs that encourage active living. The DHA and Mithun planning and design firm developed Mariposa using a unique process of community engagement.

Background and History

South Lincoln Homes, owned by the Denver Housing Authority (DHA), was built in 1953 with 287 units. The homes deeply concentrated poor residents in an obscure location. Mariposa (formerly known as South Lincoln Homes) is a set of housing units being built to replace the "old thinking" of housing for poor people. The idea for Mariposa started in 2003 when the city's transportation district began planning expansion of light rail tracks, including a stop in the South Lincoln neighborhood. Residents joked that it was the "light rail stop to nowhere" because there were no bus lines or other means of transportation in the area. DHA began working with the City of Denver and Denver City Councilwoman Judy Montero, who represents the Lincoln Park neighborhood, to plan for transportation.[lxxvi] The transportation plan led to a master plan for revitalization of the entire neighborhood.[lxxvii]

The goal of the South Lincoln Redevelopment is "to create an energized transit community where people choose to live to experience environmental sustainability, cultural diversity, proximity to downtown, and a spectrum of housing

Once finished in 2016, the Mariposa neighborhood will include 800 housing units where before there were 278.

options. The South Lincoln redevelopment will integrate planning, design, and operations to promote economic, environmental, and social vitality."[lxxviii]

The area of South Lincoln has poverty levels at triple Denver's average and 38% of residents suffer from chronic health conditions that prevent them from working (e.g., diabetes, heart problems, and asthma).[lxxix] In 2009, 94% of residents had incomes of 0-30% of the area median income.[lxxx] Incidence of overweight/obesity among residents was high (55%).[lxxxi] In a survey of residents, about 50% agreed that the community had shootings and violence, and only 51% felt safe being alone at night in the neighborhood.[lxxxii] Similarly, 48% strongly or somewhat disagreed that the neighborhood was a good place to raise children.

Mariposa's art and murals were designed by a local graffiti artist in conjunction with children in the neighborhood.

In order to improve the physical, mental, and community health outcomes of South Lincoln Homes residents, DHA worked with the City of Denver and Mithun, a planning and design firm, to draft the South Lincoln Redevelopment Master Plan in 2009.

The Master Plan covers a 17-acre site now called the Mariposa District. Mithun was the master planner for the project, and also collaborated with DHA to create healthy living initiatives. Since DHA wanted to ensure that each building looked a bit different from the next, each housing development has its own architect.[lxxxiii]

Once the nine Mariposa housing development buildings are completed, they will contain 800 housing units on 15.1 acres. The project has nine phases and is slated for completion in 2016. As of October 2014, half the buildings have been completed. Phase 1 was completed in 2012 (Tapiz Apartments, a 100-unit LEED Platinum building for seniors) and Phases 2 and 3 are also fully occupied. Phase 4 should be open by the beginning of 2015, and Phase 5 is a homeownership phase connected with Habitat for Humanity (to be completed in late 2015).[lxxxiv]

Model

Mixed-Income Housing. In total, Mariposa will have 800 new mixed-income housing units, all of which will be rentals.[lxxxv] One third will be affordable housing, one third will be workforce apartments (subsidized based on income), and one third will be market-rate.[lxxxvi] Apartments of the same size are identical except for the rent prices. One- to three-bedroom market-rate apartments will be $700 to $1,300 a month; workforce apartments will be $500 to $1,200; and affordable housing will be 30% of the household income.[lxxxvii] Because this project has federal funding, all residents must pass background checks and "adhere to resident-driven criteria."[lxxxviii] The exact number of children living in Mariposa is uncertain but Lynne Picard from DHA stated that Mariposa is being built as a family development.[lxxxix]

Health Impact Assessment Tool.[xc] DHA collaborated with residents to design holistically in order to improve health and quality of life. In light of the statistics, the Mariposa Healthy Living Initiative viewed project success in terms of physical, mental, and community health. The master design planning team (led by Mithun) conducted a health impact assessment, using the results to support designers and developers in addressing community well-being.[xci]

In 2009, DHA and Mithun conducted a rapid health impact assessment in order to better understand the status of physical, mental, and community health at baseline. The team utilized existing survey data from Denver Health, a Denver Housing Authority resident survey, and census data. The resulting Mariposa Healthy Living Initiative combined real experiences of residents with applied research. In 2012, developers worked with a Peer Review team of technical experts to refine the tools used to gather information from the community. They also worked with an Advisory Panel of residents, community stakeholders, policy experts, and jurisdictional officials to shape priorities.[xcii]

DHA will use the Healthy Development Measurement Tool (HDMT) to track progress toward project goals. The HDMT was initially developed by the San Francisco Department of Public Health, and adapted for use in Denver. It is a comprehensive evaluation metric to consider health in urban development plans, projects, and programs. The HDMT is composed of six elements: Environmental Stewardship, Sustainable and Safe Transportation, Social Cohesion, Public Infrastructure, Adequate and Healthy Housing, and Healthy Economy.[xciii] The HDMT is structured by establishing objectives in each element, indicators to describe those objectives, and benchmarks or development targets for each objective.[xciv]

Mariposa's community gardens bring children and their parents together around healthy food choices.

Attractive Spaces: Integrating Art and Nature. Mariposa aims to embody safe and attractive public space with street tree plantings (including a planted center median on Mariposa Street), public plazas, a community garden, and art, including large public art pieces, sculptures, and story murals on buildings.[xcv] Art was emphasized throughout the master plan as a means to celebrate the diversity of the community. A local graffiti artist designed the art in conjunction with children in the neighborhood.[xcvi]

Mariposa also includes a variety of green spaces, including a community garden, small courtyards, and larger parks with picnic areas and playgrounds.[xcvii] Each building has its own community garden area, with assistance and upkeep carried out by residents and a local nonprofit, Denver Urban Gardens. Between 2009 and 2012, the percent of residents with access to open space and nature within half a mile increased from 26% to 32%.[xcviii] This proportion will continue to increase as development progresses, according to the Master Plan.

Planning and Programming for Physical Health. To support a healthy lifestyle, a range of programs are offered to residents through the work of a Healthy Living Coordinator who organizes health classes, walking groups, and other programs. The onsite Osage Café and Youth Culinary Academy offer job training and healthy food options.[xcix] Mariposa has Health Navigators on site to assist residents if they have questions (e.g., How do I find a doctor? How do I get to a health center?).[c] The Healthy Living Coordinators, Café and Culinary Academy, and health navigators are supported by grant funding secured by DHA.

In addition, the buildings were designed to support active lifestyles. For example, the entrances to the residences emphasize bright staircases, whereas elevators are far less visible.[ci] In the Phase 3 building, the active design stairwell includes windows to provide natural light and a 40-foot glass art piece in the center. The colorful glass art combined with the natural light gives the effect of different colored light emanating throughout the stairs. The staircase is also interactive, creating different sounds and music as climbers touch different spots along the handrail.[cii] According to Picard, these innovative active living components especially attract children to climbing and as children build healthy habits, they often bring their parents along.

The 40-foot glass art piece in the center of the stairwell attracts children and parents to climb instead of take the elevator.

Accessibility. The developers realized early on in the planning process that the buses in the neighborhood did not connect to the light rail. The planners aimed to calm neighborhood traffic by narrowing the car lanes on Mariposa Street, and creating more cyclist and pedestrian-friendly infrastructure.

Designers added bike lanes and a new branch of the Denver bike share program at the light rail station. DHA offers free bike share memberships to residents who cannot afford the yearly membership fee and provides access to free bicycles through a partnership with Bike Depot, a local nonprofit community bike shop. According to Picard, many residents were not comfortable with bikes as transport and some did not know how to ride a bike in the City. DHA provided programming to teach people how to ride, thereby creating a new form of transportation that many had never been able to take advantage of before.

Mariposa planners designed wider sidewalks to accommodate large groups of walkers and to make the sidewalks feel safer. Residents create walking and cycling groups to travel together to events in town. There is also a coordinated walking group for getting children to school.

Planning and Programming for Safety. According to Erin Christensen Ishizaki, project lead and Associate Principal at Mithun, one of the overwhelming sentiments that came out of resident surveys was the need for increased safety. Before the renovation, there were few safe places to walk for everyday recreation. Residents worried about crime, collisions, and lack of adequate sidewalks. There were few places where people felt safe enough to gather outdoors and interact with neighbors.

Before the redevelopment, the boundaries between public and private space were unclear. Now, the open, shared spaces are more clearly defined and therefore more widely used. For example, the big plaza in front of the seniors' building looks out onto the park and the street. According to Christensen Ishizaki, these shared spaces generate feelings of ownership in the community: "The residents take on more of a stewardship role. They want to take good care of the community and be stewards of it."

Christensen Ishizaki and her team followed Crime Prevention Through Environmental Design (CPTED) principles in order to plan for safer neighborhoods. CPTED posits that effective design and use of buildings and public spaces can lead to reduction in the fear and incidence of crime, and improvement in quality of life.[ciii] CPTED theory is based on four principles: natural access control (doors, fences), natural surveillance (lighting, windows, landscaping),

territorial reinforcement (signs, sidewalks, ordinances), and maintenance (code enforcement, community clean ups).[civ] The seniors' plaza is an example of these best practices in action. It is a safe public place for people to gather and watch over the park. Both Christensen Ishizaki and Picard noted that an environment that encourages walking improves safety by creating more eyes on the street.[cv]

Furthermore, DHA installs cameras throughout the development and actively collaborates with the Denver Police Department, soliciting their input and edits to all building designs and plans.

These planning and programming decisions have already begun to bear fruit. Between 2009 and 2012, the total crime rate per 1,000 people decreased from 248 to 157.[cvi] Neighborhood crime rates strongly influence the ability of children to walk, bike, or play outside.

Mariposa's public spaces create safer places and engage residents in social interaction outdoors.

Planning and Funding

Funding Process.

Mariposa received funding from a variety of sources, including private fundraising, the City of Denver, federal stimulus funds, and a Hope VI Grant from the US Department of Housing and Urban Development.[cvii]

Overall, the project received $200 million in funding, with $4 of private funding for every $1 of public funding. The project attracted over $30 million in federal funds.[cviii] The private funding came from institutions such as the Colorado Housing and Finance Authority, driven "largely by the tax credits available to entities making investments in public projects."[cix]

The project received federal funds in 2009 as part of the federal stimulus package. The Obama administration was interested in supporting transit-oriented development projects like Mariposa.[cx] As such, Mariposa's Phase One building was funded by an American Recovery and Reinvestment Act Competitive Energy Modernization Grant.[cxi]

The HOPE VI grant was another major funding source, providing $22 million towards the project in 2010. HOPE VI Revitalization grants are awarded by the US Department of Housing and Urban Development as a result of recommendations by the National Commission on Severely Distressed Public Housing. The Commission proposed a National Action Plan to eradicate severely distressed public housing. The Plan targets revitalization in three general areas: physical improvements, management improvements, and social and community services to address resident needs.[cxii]

Community Engagement in the Planning Process. Early on, DHA created a steering committee of other local agencies and individuals who live and work in the neighborhood. This committee still meets today (October 2014) and has been involved in all aspects of planning and design.[cxiii] According to Christensen Ishizaki, "In all our work, we try to approach it from a listening standpoint" in order to understand community members' priorities.

In order to understand the community's priorities, the planners utilized stakeholder interviews, a pedestrian audit, youth visioning sessions, and outreach to specific groups. The process led to "community-driven design elements," including safe places to walk, the central plaza, parks, and community gardens.

Cultural Audit. A key part of the community engagement in the planning process was a cultural audit. The cultural audit, an innovative undertaking, is "a methodology of documentation and rigor that uses interview, survey, and in-depth market analysis to provide a contextual community snapshot."[cxiv] Over a nine-month process, the Mithun team conducted over 100 interviews, workshops, and meetings. After open-ended interviews with residents, the audit produced a summary of community opinion around desired services and features (e.g., 60% wanted locally-owned businesses and activities for youth), transportation and safety, shopping preferences, financial difficulties, and aspects of the community that are special.

Ethnographer Laura Curry conducted some of the on-the-ground community engagement work for the cultural audit. Curry spent about four days in the community, conducting intercept interviews (one-on-one, impromptu interviews done on location). Curry's intercept interviews allowed residents to lead her to places and people from whom she should learn more. Rather than holding meetings at a particular time or place to solicit residents' input, Curry went to them to ask what was important and what they would like for their community. These interactions engaged different participants and provided different answers than what a broader meeting might have produced. Additionally, the audit helped project planners to identify existing leaders within the community who would be interested in serving on the advisory committee.

External Partners. The success of Mariposa is due in large part to the extensive collaboration with external partners. The funding process was a collaboration between public and private entities. DHA provides numerous services on site, from the employment center to the healthy living coordinators. Responding to the resident demand for child care, Catholic Charities will open Mariposa's first Head Start center in 2015. The Colorado Health Foundation funds healthy living initiatives. Youth on Record empowers youth expression in the area of music. In collaboration

The new onsite bike share system has been implemented into the Master Plan along with traffic calming measures and a new bike lane.

with the Denver Public Schools, Youth on Record maintains a full recording studio on site. Finally, the University of Denver runs the Bridge Project, an afterschool program working with any youth ages 5 through college (most participants live in the Mariposa neighborhood).

Minimizing disruption to residents. Residents wanted to be able to stay in the community while renovations were taking place. In response, DHA left some of the old buildings standing while new buildings were under construction. The developers also worked to minimize the number of moves that residents had to make by constructing one building on a vacant site. Although this strategy attempted to minimize the number of moves for residents, some residents had to move twice.

Challenges. One summer, both Phase 2 and Phase 3 buildings were under construction at the same time. This construction created a large fenced off area that attracted dangerous activity from other parts of town. After a couple weeks, families notified DHA, saying they were afraid to let their children out at night. DHA hired a security firm for the rest of the summer.[cxv]

It is a challenge to build an environment and a community that encourages individuals to make significant lifestyle changes. Mariposa's design and programming make it easier for residents to make healthy choices, but it is ultimately up to residents to change. According to Christensen Ishizaki, the move makes a difference. Families are already going through a transition when they move, leaving other areas of their lives open to new and different routines: "It makes them open to new things, new ways of life. Yet we can always improve on how we communicate the choices we offer."

Summary Takeaways for the Planning for Intentional and Effective Places and Spaces for Children's Positive Mental Health project

Mariposa addresses the following strategies from the project's Best Practice Indicator framework:

Best Practice Indicator	Implementation at Blanchie Carter Discovery Park
Use of nature	Designed and built community gardens, courtyards, parks, playgrounds
Diversity of space	Each building has a different architect; public spaces incorporate many elements, from plazas to playgrounds; incorporates indoor and outdoor art
Safety	Used Crime Prevention Through Environmental Design principles; created boundaries between public and private space
Accessibility	Narrowed car lanes; added bike lanes and a new branch of the Denver bike share program; designed wider sidewalks; provided free bicycles for children
Sustainability	Uses the Healthy Development Measurement Tool to track progress toward project goals; ongoing steering committee and resident involvement in decision making

Additional takeaways and lessons learned include:

- Mariposa's strategy revolves around two key components: 1) removing barriers to access (e.g., safety, transportation) in conjunction with 2) providing new programs (e.g., the Healthy Living Initiative). These strategies align with the original goal of improving physical, mental, and community health outcomes in the neighborhood.
- A key part of the community engagement in the planning process was a cultural audit. Stakeholders working to move forward on this issue could use a similar protocol in parts of Wake County.
- The DHA uses its Healthy Development Measurement Tool to track progress toward project goals. It may be

helpful for others engaged in these effortsto follow a similar process: gathering baseline data and using a tool to track progress toward project goals.

- DHA prioritizes ongoing communication with residents. DHA makes it easy for families to give feedback, providing phone and in-person contacts. According to Picard, "At DHA, we're very connected to the people we serve because it makes it easier to do our job if they know they can come talk to us… Some of our case managers work on site so they have a great pulse on the ground." The planners' deliberate collection of data and resident input not only gives them credibility, but also ways to track progress toward goals. On-going communication with stakeholders is a recommended priority

Interviewees for this case

- Lynne Picard, Director of Workforce Development & Community Initiatives at the Denver Housing Authority (phone interview by Sachi Takahashi-Rial on October 9, 2014)
- Erin Christensen Ishizaki, project lead and Associate Principal with Mithun (phone interview by Sachi Takahashi-Rial on September 25, 2014)

Mothers' Club Family Learning Center

Location: Pasadena, CA
Space: Family/community center
Population: 120 children, ages six weeks to five years

Located in Pasadena, CA, Mothers' Club Family Learning Center serves 120 children and 110 adults with 22 staff members. Of the children served, 91% live in poverty and over half of the parents did not graduate from high school. 71% of parents speak a language other than English at home. The Center assists families living in poverty through two-generation learning with a variety of programs and spaces.[cxvi]

Background and History

The Center utilizes a dual-generation approach, working with both at-risk children and their parents and focusing on early childhood education in conjunction with parental education programs. The Center offers various services, including parenting education, mental health support, family literacy, ESL classes, and health and wellness. Children participate in Mothers' Club programming at the same time as their parents engage with the services and resources available at the Center, about three and a half hours every weekday. Mothers' Club invites the child's primary caregiver to participate in the parent programming. While fathers are able to participate, most of the parents that attend are young mothers.

Mothers' Club had been a tenant at the Quaker Community Center for 40 years. Its programming was limited to the morning due to the Quaker Center's afternoon programming. In 2004, the Quaker Center started planning the creation of a school that would need the space Mothers' Club was using. Mothers' Club moved into and renovated an existing building, completing the work in October 2007.

The shared kitchen offers a space for informal learning

Model

Informal and Formal Parenting Lessons. According to an evaluation of Mothers' Club programming by the Institute at Indian Hill (IIH) at Claremont Graduate University, "Parents gain important skills in parenting, which they use in support of their children, especially in awareness of children's developmental stages, as well as literacy promotion, communication, stress management, and advocacy in the community for one's children."[cxvii] Mothers' Club brings in external partners to facilitate formal parenting classes. Parents practice these lessons as they fulfill required volunteer hours in their children's classrooms.[cxviii] Informal learning often takes place in the kitchens, which serve as community gathering and learning spaces. In the kitchen, mothers learn English and nutrition through cooking classes and celebrate holidays and birthdays with potlucks, building a supportive community.[cxix] Improvement in communication skills, developmental awareness and understanding, and parenting skills also translate into improved home relationships (e.g., with husbands or grandparents) and interactions with older children in the household.[cxx]

Designing for Children's Development. The Center facilitates development by providing age-appropriate spaces for each child, with separate rooms for each stage: infants, toddlers, 2-year olds, 3-year olds, 4-year olds, and 5-year olds. All children have cubbies for their belongings, providing ownership over the space and routine. According to a

Mothers' Club includes five developmentally appropriate classroom spaces

Mothers' Club parent, the prevalent display of child work shows that the teachers really care about their students and gives the students pride in their work.[cxxi] The building also includes a safe place where a child can go with a teacher to calm down if the child is anxious or frustrated.[cxxii] Parents comment that their children's transition to kindergarten was easier than other children's because Mothers' Club fosters independence.[cxxiii] In fact, the IIH evaluation stated, "Mothers' Club children achieve or exceed developmental milestones for their age, despite demographic factors that would predict otherwise."[cxxiv]

Caregiver Mental Health. The Center provides comprehensive mental health services for caregivers. Each parent receives a therapist, care plan, and development goals. Mothers' Club partners with Pacific Oaks University School of Cultural and Family Psychology to bring graduate interns in marriage and family therapy to earn their practicum hours with Mothers' Club families. Families also participate in a healing arts therapy course, which has been particularly helpful for parents dealing with domestic violence or depression. Parents also learn how to set personal goals. The IIH evaluation found that the program increased parents' confidence and self-awareness. Families gain a valuable network of other families, further enhancing the caregiver support structure.

Flexible Design. The space was planned to be flexible, incorporating a variety of programs and activities. There are spaces to serve both child and parent needs, including classrooms, a library, a quiet room for counseling, a large multi-purpose room, and two kitchens. The building welcomes adults into a learning environment by providing quiet spaces and areas for individual and small group studying. The multi-purpose room is used for large groups, performances, and presentations. The children's learning center is located around an atrium and includes five classrooms. Four of the classrooms have sliding windows to maximize exposure to the outdoors but still provide classroom boundaries. The classrooms are large and easily accommodate space for quiet time, art, and other programs.[cxxv]

Outdoor Spaces. The Center incorporates an outdoor learning center that includes quiet areas, art areas, playhouses, climbing structures, and a natural stream with a hand pump. There is easy movement between indoors and outdoors with extensive natural light through skylights and storefront windows. Two of the classrooms have roll-up doors to create an indoor/outdoor learning environment. Many of the children live in crowded apartments with limited access to nature, which led the Center to build in opportunities for access to the outdoors.

The outdoor learning center provides a diversity of spaces for different uses

Furthermore, the building, a green facility with LEED Gold certification (the first preschool nationwide to register for Gold Level certification), is used as a learning tool to explain sustainability concepts (e.g., photovoltaics). [cxxvi]

Planning and Funding

Developing a Strategic Fundraising Plan. The Mothers' Club board developed a strategic plan and hired a campaign consultant to conduct a feasibility study to determine whether they could fundraise between $3 and $5 million in three years from individuals, foundations, and corporations. The Center used a capital campaign to raise funds for both the building and an endowment. The campaign consultant worked closely with the staff and board to educate them about implementation of the campaign, to provide budget projections, and to help market the program. After the consultant designed a roadmap and the board unanimously approved it, the Center carefully followed the proposed strategy. Judy Wilson, former board chair, noted the importance of having the full support of the board.[cxxvii] Over the course of two years, the campaign raised $6.5 million.

Two flexible classrooms have roll-up doors to the play yard

Design Priorities for Access. The board had two priorities for the space: 1) that it be located in the constituents' community and 2) that it be accessible via proximate bus lines. After learning of an old print shop building for sale in Pasadena with a large parking lot that could be converted to a playground, the Center decided to buy and renovate. Mothers' Club worked with an architectural design team and a developer working pro bono to entirely remodel the existing building. The Center is located in the heart of the community it serves, allowing many families to walk or ride the bus.

Input from Stakeholders. Many viewpoints were included in the planning phase, including early childhood education specialists, Mothers' Club staff, architects, and a specialist in outdoor learning. Furthermore, the Center's architects spoke with various users of the space. The mothers who used the space noted that the kitchen was an important place for gathering and requested a large kitchen with a large table. The teaching staff mentioned that their former space lacked a place for children to play indoors (in case of rain), thus an indoor play space was incorporated into the final design.[cxxviii]

Funding Process. Wilson believes Mothers' Club "got some additional funding because we were really striving." For example, the Center intentionally set the fundraising bar higher because they wanted to gain LEED Gold certification. The board knew the children and mothers would benefit from water savings, energy efficiency, indoor environmental quality, solar panels, and major skylights for natural light. Although LEED certification required costlier choices, the board prioritized a healthy learning environment for children and families. The majority of funding came from very large donors, and members of the board gave what they were able. The capital campaign improved public relations in the long run and gave the Center a strong boost in visibility.[cxxix] In the end, the total cost was $3,080,300 with a building cost of $2,500,000 and a site cost of $476,800.[cxxx]

Safety and Security. Safety requirements and developmental levels were considered in creating the age group subdivisions outdoors.[cxxxi] For example, the older children have higher climbing areas, and the younger children have smaller slides. Mothers' Club's abundant glass walls and windows into the classrooms provide transparency, another

important aspect of safety. Staff commented that parents feel more secure when many eyes can see into the classrooms.[cxxxii] The only time the front and side doors to the building are unlocked during the day is in the morning and afternoon when families are arriving.[cxxxiii] There is a buzzer and intercom system for visitors throughout the day. Typically, the office manager lets people in the building, while also screening for security purposes.[cxxxiv]

Challenges. Space is a challenge for the Center because the building only allows them to serve a certain number of families (As of 2012, the waiting list contained 175 families. The program serves 110.[cxxxv]). Other centers that built their own facilities did so with eventual expansion in mind, but Mothers' Club renovated an existing building. To deal with the space issue, the Center is looking into adding programming on evenings and weekends.

Federal regulations pose another challenge to serving more families. As a Head Start-funded program, Mothers' Club must follow specific guidelines on programming and space usage. For example, facilities receiving Head Start funds must cap each classroom at eight students, although the Center's classrooms could fit 10 or 20 students.[cxxxvi]

Furthermore, Mothers' Club has found it much more difficult to secure funding sources for adult education than for its programming with children.

Summary Takeaways for the Planning for Intentional and Effective Places and Spaces for Children's Positive Mental Health project

Mothers' Club addresses the following strategies from the project's Best Practice Indicator framework:

Best Practice Indicator	Implementation at Blanchie Carter Discovery Park
Supporting positive interactions	Offers various services, including parenting education, mental health support, family literacy, ESL classes, and health and wellness; services translate into improved home relationships; foster relationships between caregivers to provide support outside of the center; parents volunteer in children's classrooms to put parenting education skills into practice
Use of nature	Outdoor learning center that includes quiet areas, art areas, playhouses, climbing structures, and a natural stream with a hand pump
Diversity of space	Spaces for parent education and small group sessions; spaces for children's learning; spaces for socializing and informal learning; flexible multipurpose spaces; ease of transition between indoor and outdoor spaces
Safety	Age group subdivisions outdoors; glass walls and windows into the classrooms for transparency; doors locked during the day
Accessibility	Located in the heart of the community it serves, allowing many families to walk or ride the bus
Sustainability	Services evaluated by third-party researchers; LEED Gold certified

Additional takeaways and lessons learned include:

- There are benefits to striving for high fundraising goals. A high-profile capital campaign can lead to increased visibility and improved public relations. Mothers' Club worked with well-known and well-respected leaders like their developer and the mayor of Pasadena (who served as honorary chair of the capital campaign) to enhance visibility of the organization and campaign. Setting high goals can also force good design and programming

decisions. Wilson found this was true with their goal of LEED Gold certification, as the LEED goals shaped decisions to design for environmental health.

- It is important to create high levels of expectations and support for staff. At Mothers' Club, early childhood teachers are highly qualified, requiring lead teachers to hold a bachelor's degree. All teachers must possess a permit certifying their education and experience level. Over half of Mothers' Club teachers are parents who once participated in the programming. According to Hector LaFarga, Jr., Executive Director at Mothers' Club, the most important trait they seek in potential staff is a willingness to work with parents. Staff greet families at the door to their classrooms every day and give them regular updates on their children's development. Staff also meet in small groups at the beginning of each day to look for ways to support one another and to prepare for the day. As a result of the Center's support and preparation for teachers, staff turnover is rare.
- Mothers' Club builds strong partnerships with community groups to leverage more resources on behalf of families. The Center would be unable to provide its level of comprehensive support services without outside partners. According to LaFarga, "We bring in many collaborators to complement our work. We work with a dental school to provide dental hygiene for families, a local clinic for hearing screenings, bring in members of the police department to talk about safety, plus our collaborators that teach ESL and parenting classes." Public partners include Pasadena City College, Pacific Clinics' Early Head Start Program, Pasadena Unified School District, and the City of Pasadena Health Department.

Interviewees for this case

- Hector LaFarga, Jr., Executive Director (phone interview by Sachi Takahashi-Rial on August 12, 2014)
- Judy Wilson, Former Board Chair (phone interview by Sachi Takahashi-Rial on August 18, 2014)

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