



# NatureStart™ Network: Building nature play partnerships for urban children and families

## Final Evaluation Summary

October 2014 to September 2016



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## Overview of findings

NatureStart™ (NatureStart) Network brought together early childhood educators and environmental educators to support nature play, exploration, and inquiry for young children and their families within urban environments. Project partners included the Forest Preserves of Cook County and two established Head Start programs in the Chicago area, Mary Crane Center and El Valor. The foundation of the project was a series of three two-day professional learning sessions that took place over an eighteen month period. Through hands-on, collaborative learning and reflection activities, the participating educators expanded their understanding of the role nature can play in child development and their skills to introduce young children to nature in classroom, neighborhood, and forest preserve settings.

The Chicago Zoological Society Audience Research Department evaluated NatureStart Network using a mixed methods strategy to gather information from program staff, advisors, participants, and families. Through participant evaluation forms; reports from facilitators, advisors, and families; and learning session observations we saw growth in individual knowledge and attitudes, implementation of new skills, and changes in organizational approaches to young audiences.

Individual participants indicated that NatureStart was helping them to better understand and appreciate the impact of nature on child development, recognize the importance of engaging entire families in nature experiences, feel more confident working with young children, feel personally more connected with nature, and recognize more opportunities to explore outdoors with young children.

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*“I’ve gained **knowledge** about child development, the role of early childhood practitioners, how learning happens for young children and best practices for engaging young learners.”*

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**Knowledge.** Among evaluation items related to understanding, participants were most likely to report change in their understanding of what parents should gain from a nature play experience, the elements that make a natural play space engaging, and ways that adults can guide learning through nature play. With regard to sharing what they learned, just over two thirds of participants reported increased understanding of techniques to help adult learners develop new skills, how to create an environment that promotes adult learning, and the skills required to be a good mentor to adult learners.

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*“I’ve gained a sense of **comfort** to learn that there are so many different things to do in nature without having to go to a nature place such as the forest preserve; learning can happen in one’s own back yard.”*

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**Confidence.** Among evaluation items related to confidence, participants were most likely to report growth in their confidence to model nature play skills for adult learners and provide constructive feedback to adult learners as they practice nature play skills. Participants also reported increased confidence to design indoor spaces that help children develop a sense of their local environment and to design engaging nature play opportunities using their organization’s landscape. Three quarters of participants reported gains in their confidence to create nature play spaces that are inviting for parents and to demonstrate nature play skills for parents.

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*“Now that I know how to include nature in different ways, I have made it a **weekly goal** to include nature in some kind of way in my lesson plan.”*

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**Skills.** During the second and third learning sessions, participants were asked to share how they were implementing what they had learned in the prior sessions. Several categories of implementation emerged from these reflections and were repeated on post-session evaluation forms. Participants shared that, based on their learning experiences, they were modifying programs for young children as well as their facilitation methods, incorporating more indoor and outdoor nature-based activities into their lessons, modeling and sharing nature play with families, working with leaders to implement nature play at their organizations, sharing information with colleagues, and collaborating across organizations.

## Introduction

The Chicago Zoological Society designed the NatureStart Network as a model learning community that would bring childhood educators and environmental educators together to support nature play, exploration, and inquiry for young children and their families within urban environments. Project partners included the Forest Preserves of Cook County, which manages more than 69,000 acres of land in the Chicago region and operates six nature centers; and the Mary Crane and El Valor early childhood centers, established Head Start programs in the Chicago area. The foundation of the project was a series of three two-day professional learning sessions that took place over an eighteen month period. Informal and formal educators participated in these sessions together and, through hands-on, collaborative learning and reflection activities, expanded their understanding of the role nature can play in child development and their skills to introduce young children to nature in classroom, neighborhood, and forest preserve settings.

The overarching goals of NatureStart Network were to,

- Change educator practice in both formal and informal education settings to increase child and family contact with nature.
- Share understanding and use of Head Start early childhood learning assessments within partner environmental education organizations.
- Increase understanding and use of local and urban ecosystems by early childhood educators with partner Head Start-funded early childhood centers.
- Share project activities and results through a published e-book and social media.

## Evaluation methods

The Chicago Zoological Society Audience Research Department evaluated NatureStart Network using a mixed methods strategy to gather information from program staff, advisors, participants, and families. All protocols and instruments were approved by Heartland Institutional Review Board. Evaluation methods included the following,

- Participant feedback: Evaluators invited all participants to complete a questionnaire at five points over the course of the project: immediately before the first learning session, immediately after each session, and two months after the third session. Evaluation questions focused on measuring change in participants' self-reported knowledge, attitudes, and practice.
- Learning session observations: Evaluators observed the second and third learning sessions to document any information participants shared on new insights and how they were implementing what they were learning.
- Facilitator feedback: Evaluators met with facilitators after each learning session to gather feedback on participant engagement and the training process.
- Advisor feedback: Evaluators took part in three advisor meetings to capture their perspectives on how participants were implementing what they had learned within each organization, how leaders could support participating staff, and how the relationships and skills that developed could be sustained.
- Family observations feedback: Evaluators interviewed eight parents at three Mary Crane family meetings and observed four family meetings at two El Valor centers (40 participating families).
- Online community assessment: Evaluators assessed engagement with the online discussion board (Yammer) to determine whether participants used it as a networking tool and to share ideas and information.
- Review and revision: As needed, information from each of the described evaluation components was used to refine the learning session activities and increase networking opportunities between sessions.

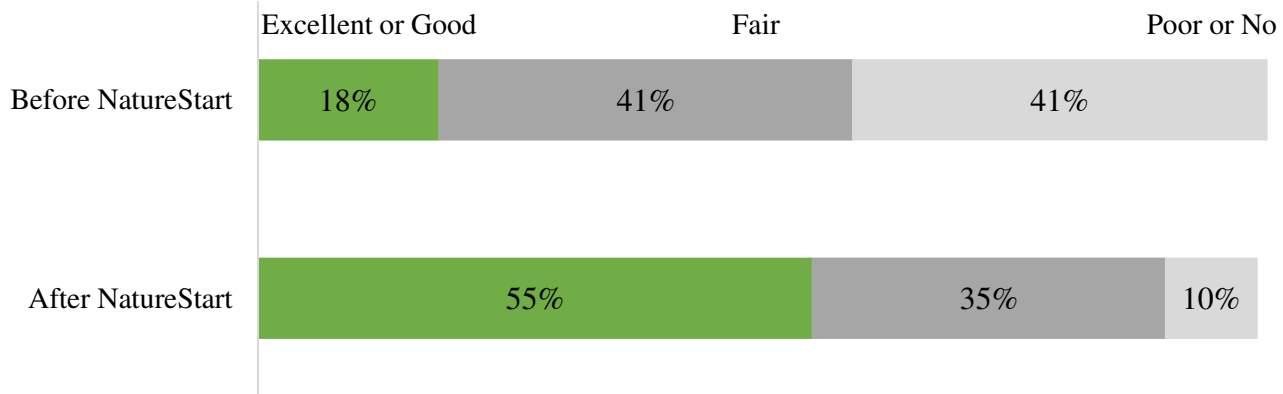
## Participants

A total of 86 staff members from three local organizations (Cook County Forest Preserves, 23; Mary Crane, 19; El Valor, 44) took part in at least one NatureStart learning session between January 2015 and April 2016. A total of 50 staff members attended all three learning sessions, an additional 18 staff members attended at least two sessions, and 18 staff members attended one session. Of these participants, a total of 48 completed evaluations before their initial phase of training and after their final phase of training that could be matched to assess self-reported change in understanding and confidence over time. A total of 43 participants responded to a follow-up survey two months after their final NatureStart learning session.

Prior to the first learning session, participants were asked about their background and experience.

- Across all participants, 42% indicated they had some training on how young children learn through nature play.
- Among participants from the Forest Preserves, 57% indicated they were starting with a moderate or advanced understanding of how young children learned (versus 86% of participants from the Heat Start centers).
- Before NatureStart, few participants from Head Start centers reported a “good” or “excellent” awareness of educational resources available at local forest preserves (increased from 18% before NatureStart to 55% after NatureStart).

### Head Start participants gained awareness of forest preserve educational resources



## Participant experience

Almost all participants (95% “for the most part” or “very much so”) indicated that they had fun during the training. Participants also noted that the training met its stated objectives (97% “for the most part” or “very much so”) and was appropriate for adult learners (97% “for the most part” or “very much so”). Almost all participants indicated that they received adequate feedback from the facilitators (98% “for the most part” or “very much so”) and had sufficient opportunity to practice skills (97% “for the most part” or “very much so”).

**Gains in understanding.** Among evaluation items related to understanding, participants were most likely to report change in their understanding of what parents should gain from a nature play experience, the elements that make a natural play space engaging, and ways that adults can guide learning through nature play. With regard to sharing what they learned, just over two thirds of participants reported increased understanding of techniques to help adult learners develop new skills, how to create an environment that promotes adult learning, and the skills required to be a good mentor to adult learners.

**Gains in confidence.** Among evaluation items related to confidence, participants were most likely to report growth in their confidence to model nature play skills for adult learners and provide constructive feedback to adult learners at they practice nature play skills. Participants also reported increased confidence to design indoor spaces that help children develop a sense of their local environment and to design engaging nature play opportunities using their organization’s landscape. Three quarters of participants reported gains in their confidence to create nature play spaces that are inviting for parents and to demonstrate nature play skills for parents.

**Skill implementation.** During the second and third learning sessions, participants were asked to share how they were implementing what they had learned in the prior sessions. Several categories of implementation emerged from these reflections and were repeated on post-session evaluation forms. Participants shared that, based on their learning experiences, they were modifying programs for young children as well as their facilitation methods, incorporating more indoor and outdoor nature-based activities into their lessons, modeling and sharing nature play with families, working with leaders to implement nature play at their organizations, sharing information with colleagues, and collaborating across organizations.

Some comments on how participants have begun to change their practice in these areas include,

#### *Forest Preserves*

- “I have partnered with Mary Crane Center to facilitate a workshop for parents to educate and inform them on the benefits of nature play as part of a healthy development.”
- “I have met with my supervisors to create a plan for my staff and site as well a larger plan for our department / agency. The plan for my site is already underway. Some training has already taken place and will continue. Department plan has target start date that occurs before end of 2016.”

#### *El Valor*

- “I have made it an intentional focus to give parents an activity weekly on nature. They can do a project that can be monitored for growth and development or an activity outdoors. I will also supply them with reading materials for the children.”
- “Now that I know how to include nature in different ways, I have made it a weekly goal to include nature in some kind of way in my lesson plan.”

#### *Mary Crane*

- “I have begun to use the framework I established in my action plan in my classroom. This includes analyzing my classroom resources and daily activities, changing materials to reflect nature, and researching and implementing natural play activities according to my students' interests.”
- “We are also in process of looking at each classroom and incorporating a nature space with materials that will allow the children to explore freely. We are looking at implementing nature walks that are intentional and that we have the right materials for the children to use during the walks.”
- “The children from different classrooms helped to turn the dirt inside of the two vegetable bed, located in playground. The Grasshoppers classroom planted vegetables tomatoes, carrots and green bean. The Busy Bees classroom planted flowers and herbs, marigold, sunflower and zinnia. The children from both classrooms measure the stems of the plants and track their growth process. The teachers from the Bunny Rabbits classroom brought out writing materials for her students to make observations about nature and the Butterflies classroom are responsible for watering the plants. The children are so excited, they can barely wait to see the finished outcomes.”

From the follow-up evaluation, we found that two months after the final learning session participants reported having started to discuss the needs of very young audiences (60% have done this, 28% are planning to do this), providing more access to outdoor play areas (49% have done this, 44% are planning to do this), providing more access to natural resources indoors (42% have done this, 44% are planning to do this), redesigning indoor spaces (30% have done this, 44% are planning to do this), and training colleagues (23% have done this, 46% are planning to do this).

**What do you feel like you have gained from NatureStart training?** Two months after the final learning session, participants also were asked to reflect on what they felt like they had gained. Individual participants shared that NatureStart was helping them to better understand and appreciate the impact of nature on child development, recognize the importance of engaging entire families in nature experiences, feel more confident working with young children, feel personally more connected with nature, and recognize more opportunities to explore outdoors with young children.



Some of the specific comments that participants shared about what they have gained include,

#### *Forest Preserves*

- “I’ve gained knowledge about child development, the role of early childhood practitioners, how learning happens for young children and best practices for engaging young learners. I’ve made more connections with professionals who, like me, want to see young children benefit from all that nature has to offer.”
- “I have gained the knowledge of how to incorporate Nature Play into my current programs. I currently offer Nature Play as a component for all my field trips. This change has impacted approximately 1,400 students seasonally”
- “It was very beneficial to have the early childhood educators in the room. We often are only among other non-formal educators/environmental educators. This created a good exchange of knowledge and information. It set the stage for future work together.”

#### *El Valor*

- “I gained more knowledge about the importance of asking children open ended questions along with looking at our environment through the eyes of the children and making any modifications to the classroom.”
- “I feel like I gained the reconnection with nature. The training reminded me of my love for nature and showed how important it is for our children to discover nature and how it helps them developmentally.”
- “A lot of insight from the different wonderful people participating in the training. I gained a sense of comfort to learn that there are so many different things to do in nature without having to go to a nature place such as the forest preserve; learning can happen in one's own back yard. However, I learned that the comrades from the forest preserve have so wonderful resources for families and activities in which they can take part of. I learned that we as adults need to see what children see in order to facilitate their learning experiences. I learned that as guiding adults in Education, we can learn how to provide the resources and support a child's learning while omitting the strong belief of "I teach you," when in reality we are partners with the children through their process of development.”

#### *Mary Crane*

- “I learned so much about how to not only engage the children but also the parents in nature activities. I learned how to implement nature throughout the center as well as how plan for nature activities.”
- “I really learned creative ways of integrating nature into the classroom. Using real materials and opened ended play will really help children develop and become more connected to nature.
- “An appreciation and understanding of the need for nature in the lives of young children. Although I realized that children want and deserve nature, I know now through Nature Start that nature is something that children need developmentally. I can advocate with key stakeholders about infusing curriculums and approaches of education with nature.”

## **Ongoing process revision**

Following each learning session, an evaluator met with the facilitators to discuss their experiences during the learning sessions, the feedback provided by participants on the evaluation forms, and what went well or needed to be adjusted for subsequent sessions. The trainers noted an ongoing need to be strategic in crafting their presentation of information in a way that was appropriate for all training participants, without going too fast or too slow to keep everyone engaged and learning (forest preserve educators initially more familiar with nature play, early childhood educators initially more familiar with child development). The trainers employed the participants and their experience to help each other as mentors and coaches as they engaged in the training activities.

For each learning session, the facilitators made ongoing changes between each of the four cohorts to improve the presentation and flow. In the first learning sessions, improvements included assigning participants to groups to encourage

more networking opportunities across organizations, providing each partner organization with more time for initial introductions, using an ecological identity tree activity at the beginning of each session to allow participants to introduce themselves and how they have integrated nature play at their organizations, and incorporating a more formal introduction of the NatureStart competencies. In later learning sessions, facilitators found it helpful to provide more time to practice narration and provide more focused guidance on how to conduct the training and action planning activities (to ensure plans could be used in the short term).

## Advisor observations

All of the Advisors noticed that they need to work within their organizations to facilitate learning transfer from the participants to colleagues. This led to a discussion on how to integrate the lessons into organizational policies and practices. Advisors have suggested strategies for introducing new staff to NatureStart, supporting participants in future growth, and sustaining the NatureStart relationships and collaborations across partners (for example, including nature play in job descriptions, performance assessments, and other guiding documents).

The Advisors also recognized a need to address barriers that families may have to engaging with unfamiliar nature spaces. Each organization suggested purchasing equipment (boots, rain ponchos) to ensure families would be comfortable outdoors in different weather conditions. The forest preserve staff reflected on ways they could better communicate resources that are available at the preserves (exploration backpacks, scavenger hunt kits) as well as materials that could outline what to expect on a visit. The early childhood center staff noted that they can talk with families about what support they would need to feel comfortable visiting nature spaces on their own or as a group (one site has already planned to introduce this as a topic for an upcoming family meeting).

The Forest Preserves shared that staff seem to be more aware of nature play and use more open-ended questions, letting students drive the lessons versus instructors leading the lessons. Staff from the Forest Preserves have begun to work with the Early Childhood centers (site visits, family meeting attendance, and collaborative projects). In addition, the Forest Preserves have started planning how to incorporate NatureStart training into an organization-wide training strategy. At El Valor, participants are bringing their enthusiasm back to the centers and inspiring other staff to want to participate. Home visit staff in particular are incorporating more nature and visiting natural areas. Leaders noticed that this year educators are requesting natural materials to restock supplies, or finding their own supplies, versus purchasing plastic materials. Near the end of the final learning sessions, participants reported that leadership had decided to remove natural materials (plants, bark, etc.) from classrooms and the organization as a whole. This seemed to be a reaction to concerns from an accreditation site visit. CZS staff has spoken with El Valor Advisors to discuss this issue and is hoping to help participants regain access to natural materials for the classrooms.

Mary Crane advisors shared how they have begun to support educators as they incorporate nature activities into lesson planning. The advisors noted that many of the educators were already excited about using nature in their classrooms and the NatureStart experience has shown them that the organization will support them as they introduce nature play and exploration.

- All Mary Crane classrooms at one site now have nature tables and children and families are encouraged to bring in and add natural materials.
- Mary Crane has started working with a forest preserve naturalist to develop “Footprints of Delight” nature walks<sup>1</sup>. An educator and naturalist have planned out neighborhood walks with the children’s interests in mind and the naturalist has taken part in the walks to support exploration. With its initial success, staff are now expanding this model to other Mary Crane centers.

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<sup>1</sup> O’Brien, C. (2006). A footprint of delight: Exploring sustainable happiness (Article 10-1-06). Retrieved from National Center for Bicycling and Walking Forum website: [www.bikewalk.org/pdfs/forumarch1006footprint.pdf](http://www.bikewalk.org/pdfs/forumarch1006footprint.pdf)

Chawla, L. (2016). Footprints of delight. Retrieved from Center for Humans & Nature website: <http://www.humansandnature.org/footprints-of-delight>



## Progress toward stated project goals

**Practice change. Educators in both formal and informal settings will gain understanding and confidence that result in the development of play spaces and the implementation of activities that increase child and family contact with nature.**

Participants will develop an action plan for implementing and sustaining nature play with their audience.

- As part of the final training phase, all participants developed training plans and actions plans to take back to their organizations.
- On the evaluation form immediately following the final learning session, 98% of participants indicate confidence (“for the most part” and “very much so”) in their ability to perform their action steps. Plans focused on sharing ideas and developing nature play plans for the organizations, staff training, supporting staff, maintaining relationships, and introducing more nature play opportunities.

Participants will implement nature play activities appropriate to young children and families.

- In learning sessions two and three, all participants (100%) shared how they have begun to implement nature play activities appropriate to young children and families. Implementation focused on five broad themes,
  - *Modify programs, activities, and facilitation.* Being more intentional in including nature in lesson plans, viewing spaces from a child’s perspective to ensure they are welcoming and that materials are within reach.
  - *Sharing information with families.* Talking with families about the importance of nature experiences and where nature spaces are available, supporting families in visiting nature places, encouraging families to explore outdoors, modeling nature plan and narration for parents.
  - *Sharing with colleagues.* Mary Crane held a professional development day in March 2016 where participants shared their experiences. Forest Preserve staff started some team training and is planning for new seasonal staff training.
  - *Incorporating more indoor nature-based activities.* Incorporate natural materials (animals, pine cones, sticks, leaves) in sand and water tables as well as science areas. Add insects, fish, and plants to classrooms for exploration. Introduce snow, bark, dirt, leaves, and other materials for sensory exploration. Use tree blocks (provided by Forest Preserves) to develop motor skills. Use shells and stones to encourage sorting.
  - *Incorporating more outdoor nature-based activities.* Take more nature hikes (were for exercise, now for exploration), observe seasons and trees, listen to bird sounds, talk about what they see and hear. Collect materials to bring back to classrooms for sand tables, sorting, and art. On home visits, take families on nature hikes and encourage families to explore the outdoors.

Participants will understand the elements that make a natural play space engaging.

- Following the final learning session, 100% of participants indicated that they understand (“very much so” or “for the most part”) the elements that make a natural play space engaging.
- After the final learning session, 68% of participants rate their understanding of these elements higher than they did prior to the first session (30% rated their understanding the same).

Participants will design new programs or redesign programs to incorporate nature play.

- 68% of respondents report they have designed new programs or are planning to do this in the near future.
- 65% of respondents share that they have redesigned existing programs or are planning to do this in the near future.
- 65% of respondents indicate they have redesigned aspects of programs or are planning to do this in the near future.

Participants will provide more access to natural resources indoors.

- About 42% of respondents indicate providing more access to natural resources indoors. Another 44% of participants report plans to start doing this soon.
- About one third of participants (30%) indicate that they have redesigned existing indoor spaces for nature play and another 44% report making plans to redesign additional spaces soon.

Participants will increase conversations with colleagues about implementing nature play.

- Overall, 60% of participants reported increased discussions about their youngest audiences. Another 28% of participants report plans to start doing this soon.

Participants will train other staff and volunteers using NatureStart.

- Forest preserve participants report that they have begun to use NatureStart for staff training (40% have started training, 47% have started planning), for volunteer training (7% have started training, 53% have started planning), and for training of others (20% have started training, 60% have started planning).
- Mary Crane participants report that they have begun to use NatureStart for staff training (18% have started training, 73% have started planning), for volunteer training (9% have started training, 64% have started planning), and for training of others (18% have started training, 73% have started planning).
- El Valor participants report that they have begun to use NatureStart for staff training (12% have started training, 29% have started planning), for volunteer training (12% have started training, 23% have started planning), and for training of others (23% have started training, 23% have started planning).

### **Learning assessment. Informal educators in partnering environmental education organizations will increase their understanding and use of Head Start early childhood learning assessments.**

Students will use their senses to investigate natural materials and make observations, will describe and discuss living things and natural processes, and will express interest in and curiosity to explore natural materials.

- Participants discussed the use of several learning assessments (Teaching Strategies GOLD™, Creative Curriculum, and Powerful Interactions) to document child development aligned with nature play and exploration.
- Participants were not asked to share their documentation as part of the learning sessions.
- Participants did share observations of how children engaged with the nature activities that were implemented,
  - One educator shared that she observed her students become more interested in the classroom's science area when she introduced natural materials (pine cones, shells, branches, animals). She felt they had perceived the area as a punishment, but now build habitats, talk with each other, and interact to build. They also add their own materials.
  - At one educator's sand table, she observed that the children used to just pour sand back and forth. Now, with the introduction of logs and toy animals, she has seen them use the area for building and dramatic play.
  - One participant noted that she works with a child who has sensory issues and was hesitant to touch different materials. She took a cue from the parent's interest in gardening and started to incorporate nature during her home visits (soil, water, plants). The child has started to explore the soil, add water, and plant.
  - Several participants shared examples where children expressed empathy for plants and with butterflies (caterpillars, chrysalis, and butterflies).
  - Two parent-infant educators noted that the children they visit play longer and are more engaged with nature objects. On home visits, they used to bring a large bag of toys and they have found that they now only have to bring a small bag of nature objects.

*Photos courtesy of: Forest Preserves of Cook County, El Valor*



Mandala created by a child and father during a Forest Preserve event where natural materials and photos were provided for free play.



Meeting a caterpillar friend at an early childhood center event.



Building with tree blocks provided by the forest preserve partners (during a participant's home visit).

**Use of local ecosystems. Educators within partner early childhood centers will increase their understanding and use of local and urban ecosystems.**

Early childhood educators began NatureStart with limited understanding of educational resources at local forest preserves.

- Prior to the sessions, only 18% had a “good” or “excellent” level of awareness (15% indicated “no awareness”).
- After the final session, 55% had a “good” or “excellent” level of awareness (no one said they had “no awareness”).

Each participating childcare center will conduct a field trip to a partner forest preserve.

- El Valor’s Pilsen Center held their annual Father’s Day event at a Cook County Forest Preserve (Little Red Schoolhouse). In past years this event has only included brunch for fathers at the center.
- One El Valor site visited Sand Ridge Nature Center and families from a Mary Crane Center visited Caldwell Woods.
- NatureStart Network partners have begun talking with NeighborSpace to identify new opportunities for nature play spaces in their communities.
- In May, Mary Crane began working with Forest Preserve staff to implement community nature walks (educator and naturalist plan walk together, naturalist takes part in walk to facilitate exploration). With the success of the first walk, they hope to expand the walks to other Mary Crane locations.
- Forest Preserve staff provided bags of tree blocks for the early childhood partners. All partners who were interested received at least one bag of blocks.
- Forest preserve staff attended a Mary Crane Play Streets event and a family meeting (where moms had the opportunity to cut their own tree blocks to take home).

Families will express interest in visiting a zoo or forest preserve.

- The initial evaluation plan included interviews with parents during family meetings at the early childhood centers. We found that there was not enough time during a family meeting to conduct interviews with enough families. Instead, we began to conduct observations during the family meetings.
- At the meetings where interviews were conducted (Mary Crane family meetings), all eight parents who were interviewed indicated an interest in visiting zoos or forest preserves. At this point families were more familiar with zoos than with the locations of local forest preserves and what was available for them at the forest preserves.

- At the El Valor meetings, families were asked to share early play memories. All memories included natural elements, which parents indicated they would like their children to also experience. Families took part in a nature play activity (arranging shells, pine cones, and rocks on fabric with a grid) and were asked to consider how their play aligned with early learning standards (observation, counting, sorting, building, etc.). Families expressed recognition of how natural materials would encourage skill development.
- At El Valor family meetings, all participating families received free passes to visit the zoo and expressed interest in family visits and upcoming special events.

**Dissemination of results. Shared project activities and results will be shared with the early childhood and information education fields through a published e-book and social media.**

Participants will join the on-line discussion network and actively engage in ongoing on-line conversations.

- Overall, 36 learning session participants (42%), 4 advisors, and 5 CZS staff members have joined Yammer, the on-line discussion network.
  - Of those participants who joined Yammer, 17% posted at least once, 17% commented on at least one post, and 19% liked at least one post.
- Program staff determined that an online discussion network may not be the most effective strategy for staying in touch with early childhood educators, due to lack of computer access and free time in their work days. While 74% of participants from the Forest Preserves joined the Yammer network, only 32% of participants from the early childhood centers joined the network.
  - None of the participants who responded to the first phase follow-up questionnaire indicated any specific challenges to using the network.
  - One participant expressed a preference for using a closed Facebook group for discussion. Program staff started a public Facebook page for NatureStart in May 2015 (243 likes as of June 2016).

*Branching Out: Building Nature Play Partnerships for Urban Families*

Program staff presented a Webinar on November 13, 2015 that attracted over 150 attendees. The Webinar was hosted by Erickson Institute and provided free of charge.

- The intent of the Webinar was to share information about nature play and examples of how the NatureStart partner organizations were implementing nature play at their organizations.
  - Included presentations by all four grant partners Dave Becker and Marilyn Brink (CZS), Julie Vandervort (Forest Preserves of Cook County), Robert Bryant (Mary Crane), and Donna Jefferson (El Valor).
  - Based on a poll taken during the Webinar, attendees included early childhood educators (48%), environmental educators (42%), out-of-school educators (38%), naturalists (25%), child advocates (18%), and in-school educators (7%). Attendees were able to select multiple categories to describe themselves.

*NatureStart symposium*

The culminating activity of NatureStart Network was a two-day symposium focused on building nature play partnerships for urban families.

- The symposium was held at Brookfield Zoo on May 17-18, 2016 and attended by 100 people from over 20 organizations.
- In addition to the partner organizations (Chicago Zoological Society, El Valor, Mary Crane, Forest Preserves of Cook County, and Erickson Institute), participants attended from the Center for Humans and Nature, Chicago Botanic Garden, Chicago Park District, Cosley Zoo, Chicago Department of Family and Support Services, Forest Preserves of Lake County, Wild Indigo, Illinois Action for Children, Lincoln Park Zoo, Logan Square Neighborhood Association, Neighbor Space, North Park Village Nature Center, Shedd Aquarium, University of Colorado, and Vera Meineke Nature Center at Spring Valley. The symposium was facilitated by ExposeYourMuseum LLC.

- Besides having learning session participants share their experiences and lessons, all symposium attendees were asked to discuss partnering to provide nature play opportunities for urban families. Attendees considered expanding the audience for family nature play, tips for implementing nature play within organizations, strategies for reducing fear of nature among families, ways to use resources that already exist in communities, the importance of reinforcing the value of nature play, and how to overcome real and perceived barriers to providing nature play opportunities.
- The presentations and discussions that took place during the symposium will form the foundation of the e-book that will be created for this project. Lessons from the symposium will also be used to strategically plan future nature play partnerships.

#### *Other networking and collaboration activities among partners*

- Early childhood centers are visiting Forest Preserve sites with their families for events and field trips (Little Red Schoolhouse, Sand Ridge, Caldwell Woods).
- Early childhood educators are collaborating with forest preserve naturalists on nature walks with children. On the first of these nature walks, a class of 17 children (aged 3 to 5) used their creature powers to explore a green space they had never visited right next door to their classroom. Before the walk, they talked about red tailed hawks and the creature powers a hawk might have, they examined a hawk feather, and they asked questions. After the walk, they shared observations, told stories, and asked more questions.
- Forest Preserve staff have attended special events and family meetings at the early childhood centers. At one family meeting, the moms in attendance helped to cut blocks out of tree pieces that had been provided by the forest preserve staff (using saws).
- All early childhood sites have received sets of blocks cut by the forest preserves from trees that they have had to remove.

#### *Other dissemination and communication activities*

- CZS staff attended family meetings at five partner sites (three Mary Crane sites, two El Valor sites) with 62 families.
- Forest Preserve District of Cook County Blog post (March 4, 2015), Child Educators get a NatureStart.
- Presentations on NatureStart Network were made by CZS staff at:
  - National Children & Youth Garden Symposium, Austin, TX (July 2015).
  - Association of Zoos and Aquariums Annual Conference, Salt Lake City, UT (September 2015, poster).
  - Children & Nature Network International Conference & Summit, St. Paul, MN (May 2016).
  - Jean Piaget Society Annual Conference, Chicago, IL (June 2016, poster).
  - National Association for the Education of Young Children Professional Development Institute, Baltimore, MD (June 2016).
  - Nature-Based Preschool National Conference, St. Paul, MN (August 2016).

## **Conclusions**

NatureStart Network introduced a new model for collaborating within communities to increase the opportunities for urban families to experience nature. Lessons learned throughout this project were used to improve NatureStart professional development activities and strengthen relationships between early childhood educators, forest preserve educators, and zoo educators. Moving forward, the partners all have committed to maintaining these relationships as well as identifying additional opportunities for collaboration. Additionally, from the organizational perspective, each partner is planning to continue to support their staff, both who participated and others, in expanding their awareness of nature play and their implementation of nature play skills.