

## Appendix A. Methodology

Qualitative methods and data in this study focused on participants' personal accounts, in-depth observation, a careful research process, and intensive efforts at achieving research validity. High-quality analysis is systematic, captures nuance, and considers the power relationships that shape the process. It is an appropriate method when a topic is relatively understudied and new categories of ideas are needed to explain important issues.

### *Team formation: Organizational partners and collaborators*

This section describes the three categories of organizational collaborators in the research project, how they were selected, and the roles each played in the project. They are presented in alphabetical order.

#### **Metropolitan Council Researchers**

Council researchers were responsible for the original research proposal, compiling all data, convening park and validity conversation activities, and coordinating the logistics for the park experiences. Team members were assembled for their expertise in equity matters, qualitative methods, youth engagement and participatory research, and outdoor recreation. This five-person, multidisciplinary research team consisted of a research sociologist on staff in the Council's Research Department, three project researchers who were undergraduate and graduate student interns, and one recent intern graduate. This team created all final products to disseminate the research.

#### **Park Implementing Agencies**

The Regional Park System of the seven-county metro area is managed by 10 Implementing Agencies that are responsible for operations, management, and programming for their respective parks. Four of the 10 agencies participated in this study. The agencies are responsible for parks located in the northern, eastern, east-central, and southern portions of the metropolitan area. Two of the agencies (Dakota County and Washington County) coordinated their community engagement for long-range planning efforts with this research process.

In two of the agencies, lead staff members had job roles associated with community outreach and engagement (Three Rivers Park District and Dakota County). In two others, primary staff participants were the natural resource coordinator (Washington County) and program specialist (Ramsey County). Park staff provided details about their agency's work with target-age youth, potential park activities, and availability of facilities. At all four agencies, excellence in programming was a significant factor in building the youth-park connection.

#### **Youth-Serving Organizations**

Five youth-serving organizations collaborated in the research design, data generation, and data analysis. After selection of the organizations, two meetings were held with each one to discuss their motivations for participation, desired outdoor activities, perceived barriers to participation, and general planning for the park experience. Selected organizations collaborated in the research design through two pre-park visit consultations, recruitment of youth participants, and, after the in-park experiences, evaluation of data validity. Their time included 10 hours with the Council research team, plus planning logistics for their youths' park experiences. They provided transportation to the parks for their youth, and convened the youth for post-park data analysis.

The organizations contributed significant social capital, including in-depth knowledge about their community and trusting relationships with youth and families. Youth researchers and youth participants were recruited from the five organizations.

**Table A1. Partnerships**

Youth-Serving Organization	Implementing Agency	Park Visited
Asian Media Access, Saint Paul	Ramsey County	Battle Creek Regional Park
Organization of Liberians in Minnesota, Brooklyn Park	Three Rivers Park District	Elm Creek Park Reserve, Eastman Nature Center
Outdoor Latino Minnesota, Greater Twin Cities	Dakota County	Spring Lake Park Reserve (long-range plan)
Troop 100, Greater Twin Cities	Washington County	St. Croix Bluffs Regional Park
Urban Roots, Saint Paul	Washington County	Pine Point Regional Park (long-range plan)
Three Rivers Park District Teen Council (validity conversation only)	Three Rivers Park District	Council research visited Teen Council

*Note:* Where youth advised Implementing Agencies as part of a long-term planning process, the parks are noted with “(long-range plan).” Organizations included youth from Hmong, Liberian, Latinx, African American, and additional Asian-American communities.

## Steps in Research Method

### Relationship-Building and In-Park Research Design

The research team conducted either one or two interviews with the staff of each participating park agency and a field-site visit to each park proposed for the study. Participating youth-serving organizations contributed valuable expert advice on removing obstacles for youth to access outdoor experiences.

To acknowledge this expertise, youth-serving organizations and their youth were recognized as microconsultants. The organizations received a stipend and their participating youth, a nominal dollar award, for their collaboration on research design and project logistics. The partnering organizations were selected through a low-barrier application process. It included a one-page application and a checklist (see [toolkit](#)).

Criteria for selecting organizations included geographic diversity, a preference for constituent-led organizations, and alignment of the organization with research priorities. Organizations were selected by an independent panel that included youth aged 15-22, community representatives, and non-research Council staff. Staff of youth-serving organizations and individual youth established relationships with Council research staff through meetings to formulate the research questions and in-park activities.

Activities were planned based on the preferences learned in these meetings. For example, activities for the Organization of Liberians of Minnesota were planned to be competitive (photography challenge) because OLM leaders discussed how important competition was to them. On the other hand, activities for Asian Media Access were more group-oriented and not competitive.

## In-Park Experience

Council staff worked with staff of participating regional park Implementing Agencies to design in-park experiences that took greatest advantage of what each setting could uniquely offer, while, at the same time, considering the specific needs of the visiting youth group. All activities helped engage youth with their natural surroundings in the park.

The programming began with an opening “ice breaker” that adapted the rituals of the partnering youth-serving organization, followed by naturalist-guided activities, such as hiking, animal and plant identification, photography, cultural/historical education, bonfire storytelling, and making s’mores. Field experiences were specifically designed to allow the youth time for unstructured use of the space (spontaneous play) as well.

Five field experiences were conducted in the fall of 2019 (see Figure A-1). Research staff met the representatives of the community youth organizations at the park. The day was scheduled to allow time for building relationships through social “ice breakers” and then an introduction to the park presented by park staff. This introduction was generally held indoors in a park building but not always. At one event, the post-field experience was held indoors at a nearby location, and at another, under an outdoor pavilion. Every field experience included food provided to the youth based on preferences noted by the youth organization.

All park experiences involved some educational component designed by the park staff, a structured research activity designed by Council staff, and some open play time directed by the community youth organization, including racing on the trails, arts and creativity, playing tag, photography, and hanging out. After the scheduled activities concluded, there was a formal interview process conducted by the youth or the Council staff with a set of reflection questions. The standard questions were designed to learn about the youths’ perception of parks, park staff, and nature in general, both before and after their in-field experience.

## Parent/Guardian Focus Groups

At every event, parents and guardians were asked to participate in a separate focus group using a standard set of questions adapted from [the 2014 Council study](#) on park use among communities of color. The purpose was to learn parent/guardian preferences, motivations, hopes, obstacles, and advice regarding connecting their children with nature-based outdoor activities. Parents were also provided an opportunity to rank desired activities. These focus groups were conducted while the youth were participating in their field experience.

## Initial Data Analysis

After completing all the park experiences with the study’s five community organizations, the Council research team transcribed their field notes, uploaded hundreds of pictures, and catalogued research materials produced by the youth. From these data, the Council team generated a list of preliminary findings and recommendations. These findings were converted to one-sentence summaries that were affirmed by all members of the Council team. From these findings, the team created a series of activities to complete with some or all of the youth-serving organizations. These activities were part of validity conversations held with all five organizations.

## Visual Methodology Workshop

Members of the Urban Roots organization participated in a two-hour visual methodology workshop, analyzing how photos can be coded as data and contribute to research. Youth

Members of the Urban Roots organization participated in a two-hour visual methodology workshop, analyzing how photos can be coded as data and contribute to research. Youth analyzed the in-park activities through studying the photos and described what was represented in the photo collection. In two groups, the youth categorized a selection of 45 photos from the in-park experiences into themes, such as calming the mind, sharing stories, and being themselves, expressing associated emotions with each grouping and photo. The groups then selected, curated, and captioned 10 of these photos into coloring book pages. The photos then influenced the creating of a coloring book and were posted on the Metropolitan Council social media channels following the workshop.

### Photo Expression Activity by Asian Media Access

During the in-park analysis, Asian Media Access used this activity with Celestial Paladins, assisted by a Council researcher Sarah Gong. She printed 60 photos that included images of weather, furniture, activities to do in parks, people, animals and city life. The photos showed a variety of activities and objects. The people featured were racially and ethnically diverse and included disability representation. Ange Hwang guided the activity.

The girls took a few minutes to carefully examine each photo and remember how they felt at time the photo was taken. Then, the girls were given a sheet of paper with the questions on it. Each chose three photos that embodied the emotions and experiences corresponding to the questions. The girls had been given a sheet of paper with two questions: “How did being in nature today make you feel?” and “What kind of programs would you like to see in the parks?”

Youth chose photos because:

*The photo reminded me of being calm and relaxed.*

*It seemed peaceful and it was, like, time to interact with each other.*

*I chose because I want to see people to gather and enjoy planting and agricultural harvesting.*

*I would like to have fun in fall. It is cold and fun... It's fun playing with snow. It is also dark in the picture, so I want a program mainly for people who don't have a lot of free time. Programs open 24/7 for those who don't have a lot of free time to do these fun things.*

*I want to show that to earn a living, money isn't always easy. Planting, growing crops to sell. It's a way to show that earning money is hard and helps youth learn lessons about working hard.*

*I want to get to see 'sea' life. I would like a boat program to help us learn about animals in the lake and aquatic life.*

### Learning Youth-Preferred Park Amenities

The research team developed a series of activities to build trusting relationships with youth and youth-serving organizations, as shown in Table A-2, next page. The [toolkit](#) developed by the Council's project team provides all resources marked in the table with an asterisk (\*) for those who may be interested. These activities provided avenues to learn about and value what young people think about parks and the outdoors.

**Table A-2. Determining Preferred Activities**

Source of Data	When	Group in Research Team
Pre-experience conversations*	Before in-park experience	Council staff, YSO selected adults and youth
Field research challenge*	In park	YSO youth
Field observations of in-park experiences	In park	Council staff
Discussion groups with youth*	In park	Youth with limited Council facilitation
Adult focus groups*	In park	YSO Adults
Inventory of possible activities completed by youth and adults from YSOs*	In park, after park for youth who couldn't attend	YSO and TRPD Teen Council youth, YSO adults
Youth presentations on publicity, policy, and principles*	After park visit	YSO youth
Youth researchers worked with Council, and YSO staff to analyze what they enjoyed about the in-park experience.*	After park visit	YSO youth, adults; Council staff
Inventory of staff knowledge and published materials to understand what activities are available.	Various times	Implementing Agency staff

### Validity Conversations

During a two-hour lunch or dinner workshop, youth completed several activities so that team staff could assess their in-park experience and evaluate Council research findings. First, the youth competed in a Kahoot quiz, a user-generated multiple-choice quiz accessible via a web browser about the in-park experience. Because three of the five organizations identified the value of competition to youth, this step provided a culturally specific and familiar activity to remind youth about their day in the park. Second, the youth prepared presentations on the in-park experience using one of three frameworks. The framework prompts on “most important takeaways” were:

1. Big thoughts – What do you want to say about the research activities and how would you answer the following research questions: What new things did you think about because of your park day? Why is the park important to you? How do you feel in nature? What do you like to do there?
2. Big recommendations – Imagine that you have been selected to give advice to the park system on behalf of youth in the Twin Cities. Write down your top three to five recommendations to deliver to the advisory committee.
3. Invitation – Think about the park you visited. What would an invitation to that park look like? What would be your tagline, motto, or brand be? Get creative! Youth researchers created a total of 12 presentations. Through this process, they generated advice and identified their

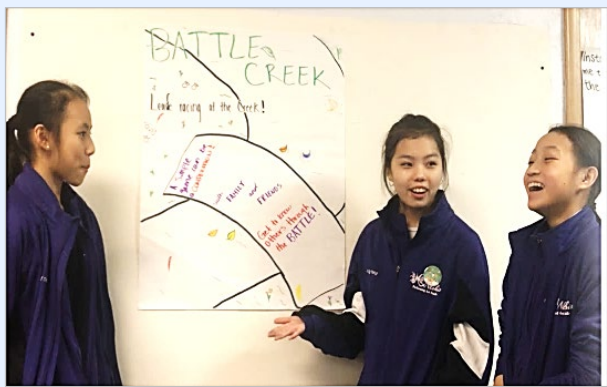
most important findings. The presentations demonstrated that youth gained experience for civic engagement by giving formal presentations to an adult audience with specific recommendations.

The third activity asked youth to evaluate Council findings. This activity introduced the concept of *social science research findings*. The Council team selected five findings for youth to evaluate. Each finding was evaluated by at least three groups. One additional youth-serving organization, the Three Rivers Park District Teen Council, completed the validity workshop without a prior in-park event. The validity conversations also included food and presentation of a certificate of completion.

Critical youth-empowerment theory advocates that youth assume increasing levels of meaningful participation and engagement. In this way, they practice important leadership and participatory skills. The validity conversations began with youth voicing either their agreement or disagreement about the research findings presented by Council staff. They then took control of the programming by preparing presentations to offer advice to Implementing Agencies and the Council about the themes of the research. They presented these presentations to Council staff and supportive adults, practicing their leadership and participatory skills of civic engagement. They were informed, where appropriate, of how their insights contributed to park planning processes. See Table A-3, below.

**Table A-3. Data Analysis Decisions**

Criteria for Choosing Finding	Additional Factors
<ul style="list-style-type: none"> <li>• Observed in the park</li> </ul>	<ul style="list-style-type: none"> <li>• Finding described how to overcome obstacles</li> </ul>
<ul style="list-style-type: none"> <li>• Talked about by youth</li> </ul>	<ul style="list-style-type: none"> <li>• Adults mentioned value</li> </ul>
<ul style="list-style-type: none"> <li>• “Sticky” (youth remembered later)</li> </ul>	
<ul style="list-style-type: none"> <li>• Mentioned in multiple groups</li> </ul>	



### Finalizing data analysis

The team worked with the themes validated by youth. All data (fieldnotes, interview transcripts, a sample of photos, poster presentations) were analyzed according to these themes. The team did this through group-coding conversations to identify themes, review of the data for themes by two researchers for each theme, and reconsideration of the themes. Council research team members wrote memos on selected themes.

Themes that were classified as important and used in developing recommendations were those that were observed by staff, talked about by youth, confirmed prior research, and/or noted across different youth groups. The process prioritized findings that were “sticky” – meaning that items or events from the field experience day were later recalled during validity conversations. Other factors that were considered important in determining findings were whether the item seemed important to overcoming identified obstacles or whether adults had identified an item as valuable.

## Appendix B. Cultural Resources

This resource list includes specific cultural contexts for further reading to accompany Chapter 2 – “Obstacles to Youth Access to the Outdoors: Findings and Recommendations.” Also available is an additional curated list of blogs by youth and perspectives of Black, Indigenous, and people of color on getting into the outdoors. Resources are related specifically to the Chapter 2 discussion of unwelcoming climate when visiting parks.

### ***Liberian***

[Storytelling Traditions of Philadelphia’s Liberian Elders](#). 2005. The Center for Folklore and Ethnography, University of Pennsylvania and The Agape African Senior Citizens Center.

[“Liberian Americans.”](#) 2014. By Ken R. Wells. *Gale Encyclopedia of Multicultural America*.

### ***Hmong***

[Listening to neglected voices: Hmong and public lands in Minnesota and Wisconsin](#). 2008. Bengston, D. N.; Schermann, M.; Moua, M.; and Lee, T. T.

[Exploring Travel Interests and Constraints among Minnesota Hmong](#). 2015. Schermann, M.; Schneider, I.; Moua C.; and Lee, T. T.

[“Understanding Dragons: Spirit and Earth Bound Worlds.”](#) Shaman Memoirs, posted January 30, 2019. *Understanding the dragon at Lake Phalen*.

[Hmong Cultural Guide: Building Capacity to Strengthen the Well-Being of Immigrant Families and Their Children](#)

[“10 things about Hmong culture, food and language you probably didn’t know.”](#) 2015. Nancy Yang.

### ***White/Dominant Culture***

[Overcoming Parental Fears of kids in nature and outdoors](#). 2019. Dr. Peter Gray.

### ***Additional Resources***

[Voters of color deeply support protecting public lands](#). 2016 poll.

## Appendix C. Acknowledgments

Asian Media Access/ Celestial Paladins	Organization of Liberians in Minnesota	Urban Roots
Arrly Her	Briella Binga	Zakaria Adji
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KaoJee Thao	Jerome Jlopleh	Hamza Isahay
Jessica Vang	Haja Kamara	Aaron Kamara
Peter Vang	Sylvia Karneh	Cecilia Kamara
Mintshis Vang	Bindou Komara	Raymond Lessard
Joua Vue	Abraham Komara	Magsuut Mohamed
Lee Xiong	Cleopatra Laleah	Ku Moo
Mina Xiong	Jairus Lavien	Estrella Nava
Patricia Xiong	Adline Mansaray	Essance Negarra
Jailia Yang	Noah Martin	Liliana Rodriguez
Lily Yang	Leila Mawlue	Abdul Sesay
Fang Yuan	Maxwell Musah	Osman Sesay
	Tennessee Musah-Vincent	Sadie Sounthala
	Lisa Nyenie-Ulea	Jesse Syndano
	Alfreda Rambal	Ger Thao
	Joel S. Reeves	May Vang
	Rector Reeves	Michael Vang
	Kalifa Sheriff	Moua Yang
	Emily Sillah	Stephanie Yang
	Tarlice Tarue	David Woods
	Cleopatra Weah	
	Paul Wilson	
	Princess Yanforh	

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Robert Street North  
Saint Paul, MN 55101-1805

651.602.1000

TTY 651.291.0904

[public.info@metc.state.mn.us](mailto:public.info@metc.state.mn.us)

[metro council.org](http://metro council.org)

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