

Exploring the Relationship Between Perceptions and Experiences with Nature and Environmental Inequity in a Youth Program in Markham, IL

SURG | Social Sciences and Journalism (SSJ) | Tags: *Fieldwork, Interviews, Qualitative Data Analysis*

*This cover page is meant to focus your reading of the sample proposal, summarizing important aspects of proposal writing that the author did well or could have improved. **Review the following sections before reading the sample.** The proposal is also annotated throughout to highlight key elements of the proposal's structure and content.*



Proposal Strengths	Areas for Improvement
The proposal moves from a broader topic to more specific issues to the precise aims of the research project.	Subheaders and underlining are not necessary.
The researcher explicitly identifies gaps in knowledge and makes claims for why it is important to fill these gaps using evidence from past research to support their assertions.	A timeline would be helpful in the methods section to prove that the scope of the project is achievable within the timeframe of the grant period.
The researcher justifies the location and population of study by connecting relevant background knowledge about the location and population to the research topic.	This proposal has a “significance” section at the end to show how the work will impact the community involved. This section may be better placed within the background section to justify “why” the work is being done.
The researcher describes how the data will be analyzed and includes “metrics of success” This description indicates the researcher is capable of interpreting their results, and that these methods are the appropriate methods to answer the research question.	



Other Key Features to Take Note Of
The scope of the 2 page proposal should focus on the project that will be conducted during the funding period, however, if your project is a part of a larger project (either a lab's project or something you have continued over different funding periods) it is good to situate the proposed project in terms of the broader work.
SURG proposals do not require IRB submission at time of application. However, the students must include CITI Training Certificate in Social and Behavioral Research in the appendix of their grant application; this appendix was removed from the sample grant for anonymity. Please see the Human Subjects Research section of our website for additional details.
While Community Based Research (CBR) fundamentally dependent on the needs expressed by a community partner, you need to have enough preliminary contact with the partner such that you can clearly describe parameters for success. It is not sufficient to “wait until you get there” to see what they need, as the review committee cannot assess this. See guide on ethical CBR here: https://bit.ly/2IFvB7F

Subheaders not needed

Summary. Green space access in urban areas have decreased in the past century as the result of rapid urban expansion (Nor et al. 2017). Research shows that access to urban green spaces promote physical activity, health of urban residents, and psychological well-being (Lennon, Douglas, and Scott 2017). It also helps with flood prevention, improving air quality, and reducing the urban heat island effect (Brent et al. 2017; Molla 2015). However, most public urban green space is not distributed equitably, and access is often stratified based on race and income level. This is true of the Chicagoland area, where Hispanic and African-American neighborhoods have less access to vegetation and green spaces (Nesbitt et al. 2019). Furthermore, research on the public's environmental knowledge and perceptions of nature tends to be less focused on communities of color compared to higher-income white communities. Perceptions of nature can strongly influence policy analysts who seek to understand how personal values translate into the adoption of various policies. Therefore, I am interested in conceptions of nature and relations with green spaces in communities of color, and particularly in understanding youth perspectives. As part of Northwestern University's (NU) research activities with The Nature Conservancy (TNC) in Illinois, I propose to explore how perceptions of and experiences with nature relate to awareness of environmental inequity. I will conduct this research as part of an evaluation of a youth environmental program organized by TNC in Illinois in Markham in the summer of 2019. This qualitative research project will serve as my senior thesis in sociology.

Background and Rationale. The relationship between the use of green spaces and perceptions of quality of life has been studied by researchers in cities around the world (McFarland, Waliczek, and Zajicek 2008). There is a vast body of research that shows that urban green spaces promote physical activity, improve the general public health of urban residents, and enhance psychological well-being (Wolch et al., 2014). In the United States, people of color typically live in the urban core where public green space is scarce and poorly maintained, affecting their health and wellbeing (Heynen et al. 2006; Wolch et al. 2014; Mitchell and Popham 2008). Therefore, race and ethnicity have become major factors in planning urban land use. Communities of color are more likely to be exposed to environmental hazards such as flooding and have a lack of green spaces compared to predominantly white, wealthier communities (Tranter 2004; Boyce 2004). Environmental attitudes are formed and affected by socio-economic, cultural and biophysical interactions. As a result, they are powerful predictors of behavior and thus an important tool in determining response to policies and planning decisions (Balram and Dragičević 2005). However, few studies focus on environmental attitudes and perceptions in under-served communities of color.

Youth perspectives are particularly understudied with regard to environmental justice. It is critical to address this gap, as current research shows that children are more susceptible than adults to environmental health hazards (Bearer 1995; Landrigan 2004). For example, a study involving low-income African-American children from public housing projects with access to green spaces in Chicago displayed increased attention capacities and impulse control than children living in non-green apartments (Taylor, Kuo, and Sullivan 2002). Thus, understanding youth perspectives relating to environmental inequity is essential as they will be the future environmental stewards.

Research overview. I aim to explore the ways in which youth perceptions of and experiences with nature relate to their awareness of environmental inequity in their communities and beyond. I will use ethnographic participant observation and photo elicitation techniques, also called Photovoice, during an 8-week youth environmental awareness program focused on environmental conservation and advocacy for high school students in Markham, Illinois in the summer of 2019.

Markham is a predominantly African-American community located south of Chicago. It is home to the Indian Boundary Prairies (IBP), managed by TNC in Illinois. NU has been collaborating with TNC at IBP for several years on hydrological research (through Dr. Packman and Dr. Miller's engineering research groups). NU has recently begun social science research here through Prof. Sera Young and postdoctoral fellow Dr. Vidya Venkataramanan. TNC is interested in improving community outreach efforts in Markham and understanding community perspectives towards nature and conservation.

To this end, Dr. Venkataramanan recently received a grant from TNC to conduct research in Chicago on community experiences with conservation and green infrastructure for flood management.

The focus of the project is clear within the first paragraph

Background helps to establish foundational understanding of past work/thought

Background leads to specific goals of 8-week project

Addresses background on community partnership

Logical flow from broad topic to narrow focus

Identifies gap in knowledge

Identifies gap in knowledge

Justifies why gap should be filled

Justifies location /study population

Addresses how research relates to community partner needs

My research project will occur as part of a larger set of research activities, including an evaluation of the youth environmental program. This evaluation will use quantitative and qualitative methods, including short pre- and post- surveys (sample questions attached in appendix), focus group discussions, and in-depth interviews. My independent portion will provide an in-depth analysis of youth participants' perspectives on nature and how this relates to understanding of local issues of environmental inequity. The NU research team has agreed for this to be an independent research question and will also give me access to other data collected in the evaluation.

Data collection. Prior to the youth program, I will join Dr. Venkataramanan in her discussions with TNC program staff to align our data collection methods to ensure that the goals of the research are aligned with TNC's goals; this is important given the community-based research approach essential for this project. I will begin the data collection at the end of June 2019 as part of evaluation activities.

Photovoice is a unique research tool that is grounded in community development and social action (Nykiforuk, Vallianatos, and Nieuwendyk 2011). Participants will be asked to take photographs of what they define as nature, green spaces, or their environment through the course of the program. I will explain the process to the 6-8 participants admitted into the program during orientation and obtain their informed consent. Through the course of the program, I will conduct in-depth interviews with each of the participants using their photographs as a guide to understand their individual experiences. Mid-way through the program, a focus group discussion will be conducted to learn about all participants' experiences with the program thus far; during this discussion, I will ask them to select 3-5 of their favorite photographs to discuss as a group. I will also conduct the same type of discussion at the end of the program, specifically focus on telling the stories of the photographs and exploring the communal aspects of those stories. By using photovoice, the youth will be able promote critical dialogue, increase engagement with the program and research, improve their recall, and involve education for critical consciousness (Wang 2006). I will also be observing a selected number of program sessions, taking ethnographic fieldnotes to better understand how the participants interact with their environment and with each other in the context of the environmental program. At the end of the program we will hold a community exhibit showcase the youth perspectives on nature.

Analysis. Focus groups will be audio-recorded and transcribed, and I will also take detailed notes during discussions and observations of selected sessions. I will analyze data using Atlas.ti 8. Transcripts, field notes, and photos will be coded based on a framework that I will develop with my advisors' guidance for thematic analysis. The thematic coding will be based on how program participants describe their opinions, perceptions, and knowledge about their community and its green spaces. As this study is inductive in design, analysis will involve open coding initially, followed by sorting codes into wider concepts to highlight emerging themes, and axial coding, where I will explore connections between coded themes. For example, if codes relating to not seeing Markham as a place of nature emerge then I can draw connections to the theme of lack of access to green spaces.

Qualifications. I am qualified to undertake this research based on my coursework and prior research experience. To date, I have taken Ethnographic Methods in Anthropology, Community-Based Participatory Research in Global Health Studies, and Qualitative Research Methods. In Spring 2019, I will take Sociology Field Research and Data Collection Methods and Analysis and Interpretation of Social Data. I have worked with the Young Research Group since January 2018 with Prof. Young and Dr. Venkataramanan who have trained me in qualitative analysis. They will also continue to guide me during the analysis phase of this project.

Significance. I will to present this work to TNC in Illinois program staff, Markham residents, and at local conferences to encourage broader community to encourage broader public support for policies designed to overcome environmental inequities. By showcasing the need for this and amplifying the voices of the youth experience, I hope that the city of Chicago will engage with this issue and take action. It will also be a valuable experience for me as a woman of color who is hoping to create systematic change through education and spreading awareness about environmental justice. This project will serve as my senior thesis in sociology and prepare me as I plan on attending graduate school for Environmental Policy.

A timeline would be helpful in your methods

If, then scenario is used to show how results will be interpreted, demonstrating the methods do address research aims

Good section to have, but could do better in background where the research is justified

Methods are defined and justified explicitly in terms of how each step helps to answer the research questions

References:

- Balram, Shivanand, and Suzana Dragičević. 2005. "Attitudes toward Urban Green Spaces: Integrating Questionnaire Survey and Collaborative GIS Techniques to Improve Attitude Measurements." *Landscape and Urban Planning* 71 (2–4): 147–62. <https://doi.org/10.1016/j.landurbplan.2004.02.007>.
- Bearer, C. F. 1995. "Environmental Health Hazards: How Children Are Different from Adults." *The Future of Children* 5 (2): 11–26.
- Boyce, James K. 2004. "Green and Brown? Globalization and The Environment," 41.
- Brent, D.A, L Gangadharan, A Lassiter, A Leroux, and P.A. Raschky. 2017. "Valuing Environmental Services Provided by Local Stormwater Management." *Water Resources Research* 53 (6): 4907–21. <https://doi.org/10.1002/2016WR019776>.
- Heynen, Nik, Harold A. Perkins, and Parama Roy. 2006. "The Political Ecology of Uneven Urban Green Space: The Impact of Political Economy on Race and Ethnicity in Producing Environmental Inequality in Milwaukee." *Urban Affairs Review* 42 (1): 3–25. <https://doi.org/10.1177/1078087406290729>.
- Landrigan, Philip J. 2004. "Children as a Vulnerable Population." *International Journal of Occupational Medicine and Environmental Health* 17 (1): 175–77.
- Lennon, Mick, Owen Douglas, and Mark Scott. 2017. "Urban Green Space for Health and Well-Being: Developing an 'Affordances' Framework for Planning and Design." *Journal of Urban Design* 22 (6): 778–95. <https://doi.org/10.1080/13574809.2017.1336058>.
- McFarland, A.L., T.M. Waliczek, and J.M. Zajicek. 2008. "The Relationship Between Student Use of Campus Green Spaces and Perceptions of Quality of Life." *HortTechnology*, January, 232–38. <https://doi.org/10.21273/HORTTECH.18.2.232>.
- Mitchell, Richard, and Frank Popham. 2008. "Effect of Exposure to Natural Environment on Health Inequalities: An Observational Population Study." *The Lancet* 372 (9650): 1655–60. [https://doi.org/10.1016/S0140-6736\(08\)61689-X](https://doi.org/10.1016/S0140-6736(08)61689-X).
- Molla, Mikias Biazen. 2015. "The Value of Urban Green Infrastructure and Its Environmental Response in Urban Ecosystem: A Literature Review." *International Journal of Environmental Sciences* 4 (2): 13.
- Nesbitt, Lorien, Michael J. Meitner, Cynthia Girling, Stephen R. J. Sheppard, and Yuhao Lu. 2019. "Who Has Access to Urban Vegetation? A Spatial Analysis of Distributional Green Equity in 10 US Cities." *Landscape and Urban Planning* 181 (January): 51–79. <https://doi.org/10.1016/j.landurbplan.2018.08.007>.
- Nor, Amal Najihah M., Ron Corstanje, Jim A. Harris, and Tim Brewer. 2017. "Impact of Rapid Urban Expansion on Green Space Structure." *Ecological Indicators* 81 (October): 274–84. <https://doi.org/10.1016/j.ecolind.2017.05.031>.
- Nykiforuk, Candace I.J., Helen Vallianatos, and Laura M. Nieuwendyk. 2011. "Photovoice as a Method for Revealing Community Perceptions of the Built and Social Environment." *International Journal of Qualitative Methods* 10 (2): 103–24. <https://doi.org/10.1177/160940691101000201>.
- Taylor, Andrea Faber, Frances E. Kuo, and William C. Sullivan. 2002. "VIEWS OF NATURE AND SELF-DISCIPLINE: EVIDENCE FROM INNER CITY CHILDREN." *Journal of Environmental Psychology* 22 (1–2): 49–63. <https://doi.org/10.1006/jevp.2001.0241>.
- Tranter, Bruce. 2004. "Environmentalism and Social Differentiation." *Journal of Sociology*, 221–235.
- Wang, Caroline C. 2006. "Youth Participation in Photovoice as a Strategy for Community Change." *Journal of Community Practice* 14 (1–2): 147–61. https://doi.org/10.1300/J125v14n01_09.
- Wolch, Jennifer R., Jason Byrne, and Joshua P. Newell. 2014. "Urban Green Space, Public Health, and Environmental Justice: The Challenge of Making Cities 'Just Green Enough.'" *Landscape and Urban Planning* 125 (May): 234–44. <https://doi.org/10.1016/j.landurbplan.2014.01.017>.

Appendices:



Inclusion of this protocol is really helpful for the committee members to know what the process would look like and how the community will be involved.

Photovoice Protocol

During Program Orientation:

As part of the larger informed consent process for the evaluation conducted by Dr. Venkataramanan, I will explain the photovoice process to participants and their parents/guardians. I will read the informed consent form for the photovoice interview out loud and give the participants and their guardians a copy. Then, if they agree to participate, I will ask both of them to sign the form. I will:

- Explain why we want the participants to take the photos
- Explain that we will print copies of each photo for the interviews/discussions that they can take home with them
- Explain that we value their privacy, and if they want, any identifying information can be removed from the photographs
- Explain the interview and group discussion format. Other participants will be able to see the photos they bring, so if there is a photo they don't want to be shared, then it will not be used in the group discussion

Camera Instructions

- Check whether all participants have a smart phone with a functional camera. If not, we will loan them a digital camera. If needed, I will instruct them on how to use it and take photographs.

Central Topics to Take Photos Of

- Things that you perceive as part of the natural world and not of the natural world
- What prevents you from feeling or seeing more nature
- Anything you think is related to the environment and how you feel environmental issues are relevant in your life (e.g. recycling, water use, food waste)

Central Question:

"What do you view as nature and what does it look like for you to experience this?"

1. Photovoice Follow-Up Individual Interviews

Timeline: First 2-3 weeks of program

Duration: 20-30 minutes

Location: At IBP office, without staff present

Thank the participant for their participation in the study. State that they do not have to talk about anything they don't want to, and they can stop the interview at any time. (expected duration: 20-30 minutes).

Materials: 2 sets of printed photographs; voice recorder

Interview Questions: (make sure the recorder is on)

1. Please describe this photo #X (go through all of them)
2. **Probe!** (ex. Why did you take this picture? Why is it important?)
3. What would you define as part of the natural world?
4. What affects how you see nature?

5. Do you have difficulties engaging with the outdoors?
 1. Is safety ever an issue?
 2. Are you able to get to areas of nature, like the prairies?
6. What do your family or friends think about you being part of this program? Have you told them?
If no, why not?
7. Which photos are the most important that we should include in the group discussion?

Talk to the participant about the group discussions.

2. Mid-Point Focus Group Discussion

Timeline: Mid-point of program in August

Duration: 1 hour

Location: At IBP office, without staff present

Interview Questions pertaining to my research question:

1. What does the central question mean to you?
2. Describe how you define nature
3. What are some things you don't consider part of the natural world?
4. How often do you interact or seek out time in nature (or what they define it as)?
5. What are some things that prevent you from experiencing this?
6. Are there any environmental issues you are concerned about? Is this a role/does it play a factor?

3. Photovoice Focus Group Discussion, towards end of program

Timeline: Mid-point of program in July

Duration: 1 hour

Location: At IBP office, without staff present

Materials: copies of selected photographs; voice recorder; poster paper

Introduction:

- Remind participants why we had asked them to participate in this project, and what they say is confidential. They do not have to share photos if they don't want to.
- Tell them that we would like to have a group discussion about the photos they took. We think their opinions are valuable, and we would like the participants to share their experiences with each other so we can see where they are similar or different.

Group Discussion Questions: (make sure recorder is on)

- The question you answered with your photographs is "What do you view as nature and what does it look like for you to experience this?"
- To each participant: Please explain 2 of your photographs and how they relate to the question.
- Based on your photographs and experience, how would you describe the green space in Markham? Too much or too little?
- How often do you engage with the spaces you photographed?
- What would make it easier for you to spend more time outdoors?
- What environmental issues do you see as relating to what you've brought up?
- Who would you like to know about the information you are giving us? Would you like someone else to see these photos?

SURG Application (Summer 2019): Anthropology; Community-Based Research

- Ask if we can use the photos in other contexts (website, paper, etc.).

Take notes on poster for participants to look at during the discussion, so they can see what themes they have agreed on, along with a list of things they may like us to do with their photographs.



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