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### Youth Empowerment for Environmental Justice

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Youth Empowerment for Environmental Justice

Mattie B. Brickle

A capstone project  
submitted in partial fulfillment  
of the requirements for the degree of the  
Doctorate of Education  
in Educational Leadership  
University of Washington, Tacoma  
2016

Supervisory Committee:

Dr. Robin A. Evans-Agnew, Committee Chair

Dr. Janet Primomo, Committee Member

Nicole Klein, MSN, Committee Member

Program Authorized to Offer Degree: University of Washington Tacoma Education Program

### Youth Empowerment for Environmental Justice

In this summative report, I demonstrate and describe my capstone experience as I engaged in a youth air quality research project. With this summative report, I reflect on the overall process of my scholarly research, describe the history of this project, my writing process, lessons learned, my experiences, and how it connects to the educational leadership program. This capstone project involved working in collaboration with Dr. Robin Evans-Agnew and other researchers on an air quality research project with youth recruited from a geographic area of Pierce County that has not met air federal quality standards.

First, I want to provide relevant personal back ground information. I am a multiracial (Black, Thailand, and Indian), middle-class woman and mother residing in Tacoma, Washington, attending University of Washington Tacoma to obtain a Doctorate of Educational Leadership Degree. I am the second child to earn my doctorate degree in my family. Graduating with a Doctorate degree has been a major accomplishment in my family because my father (who has passed) only had a high school degree and was working on some college classes and my mother only finished seventh grade. I currently work as a Clinical Nurse Specialist with my MN degree, at Washington State's largest psychiatric facility.

This report is written in my voice as this is the one thing that I have learned in my courses and in my writing - the importance of voice. It is important to ensure that voices were being heard to value different experiences and perceptions. In the experiences of low-income adult women of color in a study similar to the Photovoice study I participated in, being heard increased their sense of self-worth (Duffy, 2011). The originator of the first published Photovoice study conducted with Chinese Women villagers, noted how important it is to communicate the voices of those who “would not be ordinarily heard” (Wang, Burris, & Ping,

1996). This report is written in my voice in compassionate solidarity with the voices of the ten youth who were so very important to the successful outcome of this study.

The focus of my capstone project was to identify youth empowerment as they engaged as “citizen scientist” in an air-sampling and Photovoice project. Citizen science refers to research conducted by professional scientists working collaboratively with community members (Jenkins, 2011) who are actively involved in one or more aspects of the research process. The project entailed recruiting, consent signing, working in collaboration with the advisory committee, engaging youth in three discussion groups and a final event presentation to the community. The reason I choose to work on this project was that I was interested in learning about the problem and working with youth on influencing air quality policy change, which is a problem in Pierce County. As a person who suffers with asthma, I felt that poor air quality was an important community issue that needed to be addressed. Secondly, having the opportunity to learn about youth perception about empowerment as they engaged in an authentic research project was exciting to me. As a nurse leader, it is important to ensure that community members have access to relevant information to make decisions about their health. Education is the key to being able to make critical decisions, be self-aware of what is going on in the environment, advocate for a healthy environment, and influence changes in air quality policy.

### **History of the Youth Empowerment Research Project**

My project was a part of a grant that Dr. Evans-Agnew received in early spring, 2015. I met with Dr. Evans-Agnew and discussed my participation as a research assistance in the research project for my educational leadership capstone project and what my focus would be on the project. I decided to focus on how youth perceive their empowerment as they engaged in

citizen science in a Photovoice research project. I was involved in several meetings with the advisory committee and research team to implement the project. The meetings entailed identifying areas to distribute the flyers to attract diverse youth to engage in the research project. I assisted in distributing the flyers. Dr. Evans Agnew received inquiries from youth interested in the research and screened potential participants to see if they met the criteria. Then he scheduled consent signing which I assisted in and I completed four consents signing by myself.

The consent signings process involved meeting with the youth and their parents to go over the consent forms, sign, and to answer any questions that they may have. This process was from 30 minutes to an hour and included information about the project, approval for the project through the University of Washington Institutional Review Board (IRB), ethical considerations, and the youth's rights and responsibility while participating in the research project. Some of these responsibilities included completing a woodsmoke and empowerment surveys at the first and third meetings, participating in three after school meetings, maintaining confidentiality of group discussions, collecting air samples in the youth's home, taking photos of what youth thought of woodsmoke pollution, and presenting their photos, text, and air samples at the final phot-showing community event, and completing a final survey about the research study.

The empowerment survey is a 25 item Likert scale that was administered at the first meeting and last meeting to assess change over time in youth's level of empowerment. The woodsmoke survey has 32 questions regarding woodsmoke that was administered at the first and third meeting to assess change over time with youth's woodsmoke knowledge. The final evaluation survey had nine questions to assess the research study process, what the youth identified that went well or changes that could improve future projects.

We met with the youth for three focus group discussions and a final presentation of their findings at a community event. The first meeting involved an introduction to the group and the researchers. The empowerment and woodsmoke surveys were completed. Education and a discussion on health effects of woodsmoke pollution took place. The digital cameras were distributed and training on taking pictures for the Photovoice event was provided. Finally, an overview of what to expect at the second meeting was reviewed. The youth engaged in critical dialogue about woodsmoke and expressed their desire to make change for healthy air. The youth came up with ideas such as making a better filter, making a better stove, cleaning up the air, preventing air pollution from smoke, letting people burn wood but make it clean, and making fuel alternatives affordable for all families.

At the second meeting, the youth brought their cameras in, and their pictures were downloaded to the computer to display. At that meeting a dialogue about the pictures occurred amongst the youth. Kathy Ross, Clean Air Manager of Tacoma Public Health Department, welcomed the youth and thanked them for participating in the air quality research. She expressed how she excited was to learn what the youth find. During their dialogue sessions the facilitator utilized the “SHOWED” (See-Happening-Our-Why-Empower-Do) method (Wallerstein & Bernstein, 1988) to talk about the pictures the youth had taken.

Then, Alex Gipe, who is the Lab Manager from the University of Washington Tacoma Center for Urban Waters, provided training to the youth on the air sampler machines and discussed the air collection plan during the burn bans when air quality was poor. Next, each youth had an opportunity to practice with the air sampling machine to see if they could perform the required machine setup task. At that point, the research team members were all assigned youth to be their troubleshooters. The data collection was quite challenging with the youth’s

schedules because they had other family obligations, school, and sports activities, etc. - which I had to work around. The data collection experience was an eye opener for me as a researcher conducting this study in a community setting. I realized that in the community, you have to go to the participants, work around their schedules, and understand that you have to be flexible - especially when working with youth. I think the most important key element in this project was developing relationships with the youth and their parents. This was extremely important especially when I had to go to their homes and help troubleshoot or collect the air samples the youth collected. I had to earn the respect to be accepted into their homes. Respect, trust, and supportive relationships that were established and maintained during the research project may have been a motivating factor for the youth and their family members to complete the project.

In January, the youth had a chance to go and check out the lab at Center of Urban Waters with Alex Gipe. The youth were excited and they brought some of their family members who were interested in what the youth were doing. They had a tour of the lab to see how their air samples were processed. They also had an opportunity to explore the garden on top of the roof. At the end of the tour, Dr. Evans-Agnew reminded the youth of the next meeting and that they would be preparing for the presentation of their photos at the community event.

At the third meeting, the youth chose their two pictures of choice to present at the community event. There was dialogue and discussion of the photos and the youth wrote text to accompany the photos. Alex Gipe came and presented the data findings from the air samples. The youth engaged in dialogue about the results and decided on how their findings will be displayed at the event presentation.

The event presentation happened at a Tacoma Public library located in the non-attainment area. There were approximately 50 community members attending, with nine of the ten youth presenting and their family members. The youth were excited about their presentation and they all came dressed in professional attire. During the presentation, the community members had an opportunity to look at the photos plus the text written by the youth, air sample findings, and engage in dialogue with the youth about the project. Then Dr. Evans-Agnew facilitated group dialogue with the participants about what they saw, how they felt, and what could it mean. After the dialogue session with the advisory committee members and stakeholders, Cathy Nguyen, a Poet Laureate for City of Tacoma who seeks to promote social equity and youth leadership through creative expression and community organization, presented a poem about the youth. Next, Dr. Evans-Agnew and I presented the youth with their participation certificates and a CD of all of the photos that were collected.

My role in this project was to work in collaboration as a researcher with Dr. Evans-Agnew and the youth on the air quality research project. After an extensive literature review about empowerment and my reflection on the processes the youth engaged in, I was able to observe an increase in youth empowerment during our interactions. This was evident in their discussion dialogue, as well as responses on their surveys. This was my first research project working with the youth population and it has been a positive learning experience. Learning the empowerment process through perspective of youth has been a benefit as an educational leader.

### **Writing Process**

During the yearlong research project I engaged in daily writing and weekly reflective journaling about: What happened? So what? Now what? The last three months of the project, I



reflective journaled every night as I engaged in the data analysis of the project. At first, I wasn't sure if I could have completed the daily writing – but what I learned was that it helped improve my writing skills and how much I could write when I set daily time to write. My capstone chairperson, Dr. Evans-Agnew, “walks the talk” about daily writing and encouraged me to do so. Having the opportunity to engage in reflective writing has helped me see my thinking process that I engage in and how I perceive what is going on and what I am thinking about when I am analyzing the data.

The writing process has also supported two student learning goals of EdD program. For example, I was able to model effective communication with my chair and committee members throughout the process which has been a key factor in facilitating my learning experience. Second, evaluating my own leadership through the process of reflective writing has been beneficial in identifying how I present myself as a community leader with the youth and implement critical feedback as they present. For example, I included in my weekly reflective writing feedback from people that I interacted with during the research. Third, the writing process exposed me to research writing which was a new way of writing and a new experience. For example, writing for a journal, writing about data analysis, and writing for a specific audience were new skills for me. Fourth, the writing process provided me with resources to refer to that demonstrated all of the activities that I have accomplished and how I navigated through them. For examples, during the process I have been keeping journals, memos, and notes on the task completed, the process, and how I overcame the obstacles to achieve the goal.

### **Lessons Learned**

There were many lessons learned through this capstone project. First, I learned to increase my own self confidence by exhibiting professional values while working, interacting, building trust and meaningful relationship with diverse youth, their families, and community members in a respectful manner acknowledging their diverse backgrounds and perspectives. Second, I learned to turn critical feedback from my chair into learning experiences. For example, my chair provided me with critical feedback on my paper, how to code, analyze, and present data in research paper, and how to write for an academic audience. Third, I learned from the youth themselves, how they view things, learn, their perceptions of their communities, how they use their voice, and what they want to see happen with this research project.

### **Valuable Learning Experiences**

I had many valuable opportunities and experiences throughout this project. First, I worked in collaboration with the advisory committee, participated in scheduling meetings, and participated in the dialogues and brainstorming ideas with the youth. Second, I completed the institutional review board process through University of Washington. Third, I had an opportunity to present the air quality project to the Medical Explorer group to recruit youth into the program. Fourth, I learned how to work with and together with the diverse groups of youth.

One of the most beneficial experiences in this whole project was working with the youth on an environmental justice problem. There has been limited research about youth and their empowerment. Observing and interacting with the youth from the beginning of the project to the event presentation was inspiring. I have learned a lot from the youth during their group discussions and how they put things into their perspective, their experiences, and their voice. I

have learned the importance of youth voice and how they can influence policy change because they talk about their experiences within their environments.

### **Educational Leadership**

This project was developed using the framework of environmental justice regarding youth air quality concerns. According to principles of environmental justice, youth have a right to live, play, attend school and worship within communities free from polluted air (Bullard, 1994). Through focused discussion groups and a community event, the youth identified ways of influencing, educating, persuading, and informing about air quality policy change. The youth identified resources within their communities along with other problems that exist. As an educational leader, I had to be prepared, reflective, authentic, and to always ensure that I was effectively communicating with advisory members, chair, researchers, and youth etc. There were activities that I engaged in in order to meet the leadership student goals.

I was able to demonstrate competency in scholarly inquiry when I engaged in research to address problem of practice related to woodsmoke problem in Pierce County. I completed an extensive literature review of adolescent empowerment, critical theory, citizen science, environmental justice, health issues associated with woodsmoke, and Photovoice. Because I had completed a thorough literature search, I was prepared to have influential conversations with my chair and other key stakeholders. For example, during our advisory meetings and interactions with community members. I could contribute to the discussion about the research methods being used in the project to study the problem. Also, I met with key stakeholders to engage in discussion about the project progress and to disseminate information. For example, I met an

advisory board member with Dr. Evans-Agnew and discussed recruitment. Also, I met with other researchers involved in the project for debriefing or coming up with a plan of actions.

I was able to apply theories of leadership while I developed and maintained positive and community cultural relationships with the youth, their families, other researchers, and advisory committee members. I identified the necessary steps needed to ensure the research project sustainability within the youth community to ensure the success of the project. I gathered qualitative and quantitative data from the empowerment survey and evaluation survey. These surveys demonstrated an increase in youth empowerment. Also, I was able to influence youth, effectively communicate with all stakeholders, demonstrate my leadership abilities through my interactions, and learn from this project. As a leader, I acknowledge that there were multiple proposed solutions to the air quality problem that were expressed by the youth in order to influence air quality policy change for Pierce County community members.

I feel that I was able to demonstrate competency in core professional values and guiding principles including commitments to ethical leadership, social justice, and respectful interaction with others of similar and diverse backgrounds with my various points of participation and engagement. These relationships have given me the opportunity to see tremendous growth in my leadership skills and ability. Developing strong leadership values that help me view the world through a social justice and equity lens is the way that I have framed my work with the youth, researchers, and key stakeholders.

I demonstrated competency in articulating and advancing the mission and vision of the research project through fully engaging in the research process. By establishing strong ties and relationships with all partners, I furthered the project's mission by engaging with the project's

multiple communities. I am committed to growing as a leader and delivering value-added outcomes to the youth and their communities. I want to continue to respect and honor the cultural diversity of the communities while maintaining a strong sense of community.

I was able to demonstrate effective communication in the context of complex environments and diverse constituents in advocating for the youth and their community. This was evidenced with observational change with the youth, key partners, and my committee members and capstone chair. I have increased and strengthened my professional communication skills and this was evidenced and observable during my communication and interactions with the research team, the youth and their families, and community members.

Throughout the capstone experience, I examined my own and other's leadership skills. I have learned through observation and self-reflection that there are leadership skills that are effective in influencing change. Expert knowledge about woodsmoke is an example of a leadership skill that is important to policy makers who can influence woodsmoke policy change. I have been able to translate the leadership knowledge and skills that I have learned through my course work into practice. My plan is to continue to improve my personal leadership style to be influential and a change agent within a system.

### **Summary**

In conclusion, this capstone experience has been an opportunity for me, as an educational leader, to apply research methods that facilitate empowerment, use an environmental justice lens, and work in collaboration with youth. A leader doesn't have to be someone in an organization. A leader can be a community member advocating for the community's rights and influencing change to policies that exist within a community. My experience with this capstone project has

been positive. My perspective has changed on how I view youth potential and empowerment after working in collaboration with them on this research project. My leadership skills have improved as evidenced throughout my involvement as a researcher in the capstone project and my leadership in advocacy and youth empowerment.

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