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**EXAMINING THE IMPACTS OF YOUTH PARTICIPATORY EVALUATION
METHODS ON A YOUTH PARTICIPATORY ACTION RESEARCH SETTING**

A Dissertation in
Agricultural and Extension Education

by
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ABSTRACT

Program evaluation is a stage where relationships between program stakeholders and values are displayed. Participatory evaluation involves program participants in all stages of an evaluation, and past narrative case study literature has suggested this interaction can change participants' experiences with a program in beneficial ways. This dissertation tested this proposition empirically through a quasi-experimental design. Specifically, this study sought to understand the impacts of involving young people in a participatory evaluation of a social-justice project entitled Youth as Researchers.

This study randomly assigned half of Youth as Researcher groups to participate in youth-led evaluation activities. Participants in the experiment wrote reflective essays, created their own evaluation questions, and conducted peer interviews. The other half served as control groups. Data collection occurred through pre/posttest surveys and focus groups. This study examined differences among the experimental and control groups at individual, relational, and community/organizational levels. Study results indicate that participants in the experiment had changes at higher levels than participants in the control groups across six areas: self-confidence and skills, personal reflections, social connections to other youth, motivation, youth voice, and community attachment. Implications for future practice and research are explored.

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CHAPTER 1

INTRODUCTION

Listening has transformational power. It is the cornerstone to empathy and trust, and leads to nuanced understanding of another's position and experience. It requires the listener to hand over the power of speaking in order to be open to another. Within interpersonal relationships listening and communication is the lifeblood of emotional closeness. Yet, listening is no less critical within another type of relationship- that of those who deliver, receive, and interpret social programs.

Studying the nature of social programs is a challenging opportunity. Social programming and policies must be crafted while the understanding of the mechanisms driving them are being built (Donaldson & Scriven, 2003). Those who study these programs simultaneously engage in many discussions- what a healthy society should be, theories of social behavior, and practical realities (Dahler-Larsen, 2012). Nowhere is this dynamic more explicit than in the evaluations of social programs. Evaluation mirrors these discussions since it requires reflecting on social values, understanding program theory, and making recommendations for program decisions (Dahler-Larsen, 2012).

Through the evaluation process knowledge is gained as to why programs succeed or fail and, ideally, how programs are improved. However, wherever there are people interacting, there are relationships being built and power being negotiated (Mertens, 2009). Evaluation is a stage

on which relationships between program stakeholders, including program participants, are displayed. Participation of these stakeholders during an evaluation can be considered a form of listening. Given that communication can alter other relationships, does involving program stakeholders, especially participants, in the evaluations of their programs change them in some way? Might it have unforeseen effects?

This dissertation explores this dynamic through a youth lens. This research will explore whether or not young people's involvement in participatory evaluation changes their experiences of a youth program. The central argument of this dissertation is that participation in evaluations of programs for youth, by youth, can have additional benefits for young people beyond participating in the program alone. That is, as we attempt to improve our programming for youth through evaluation, the way in which we conduct these evaluations can have additional benefits if done in a participatory manner. This study compares the effects of youth's active involvement in an evaluation compared to inactive involvement in an evaluation. The evaluation at the heart of this study is of a participatory action research project entitled *Youth as Researchers*.

Involving Youth in Research and Evaluation

Involvement of youth in community research projects is nothing new. Strategies for building strong communities must walk hand-in-hand with young people, and scholars and practitioners have long established the importance and benefits of integrating youth development with community development (Nitzberg, 2005; Benenson, Kawashima-Ginsberg, Levine, & Sullivan, 2016; Beneson & Saito, 2001; Huber, Frommeyer, Weisenbach, & Sazama, 2003). Not only are youth the future leaders of communities, but they reflect the diversity of any community. Similarly, they are often more in touch with the issues, obstacles, and opportunities

existing within their localities. Involving youth in community-based research is a way to intertwine youth's interests and abilities with community needs and opportunities (Brennan, Barnett, & Baugh, 2007; Huber et al., 2003; Beneson et al., 2016). Community-based research attempting to change the social conditions of a specific place is called action research (Lewin, 1948; Freire, 1971; Boog, 2003). Action research with involves youth heavily as researchers and change-agents in their communities is called Youth Participatory Action Research (Flicker et al., 2008; Ozer, Ritterman, & Wanis, 2010), or YPAR.

While closely aligned with YPAR, Youth Participatory Evaluation (YPE) differs slightly from YPAR. Rather than encouraging youth to engage in the conceptualization and operationalization of research topics from the beginning, YPE invites youth to participate actively in assessments and evaluations of programs with which they are key stakeholders (Flores, 2008; London, Zimmerman, & Erbstein, 2003). YPAR is a more radical form of youth engagement, requiring no other structure than self-organizing youth, while YPE is more structured, requiring the prior existence of the program being evaluated. Yet, YPE has been discussed and considered as a way to infuse more radical and empowering youth engagement within existing organizations and programs, and is considered a pragmatic way to improve data collection while also fostering youth voice in decision-making about programs in which they are impacted (Powers & Tiffany, 2006; Checkoway & Richards-Schuster, 2004; Gildin, 2003; Lau, Netherland, & Haywood, 2003).

YPAR and YPE are differing concepts, but hold many similarities, including in the outcomes related to their use. Scholars studying both areas argue that the involvement of young people in systematic research can improve their lives, the lives of their communities, and even champion causes at a wider level (such as national or global causes). These concepts also

consider research and evaluation involvement as a possible avenue to activism, longevity in community relationships, self-confidence, and skills (Flores, 2008; London et al., 2003; Powers & Tiffany, 2006). Participation in YPAR often has activism and change as its primary goal, while YPE has accurate and valid assessment of a program as its primary goal. However, activities and involvement in one area can spill over and support involvement in another, particularly since research skills and activities are central to both concepts.

The YPAR setting can provide a *location* in which to more fully understand the process of involving youth in evaluation. YPE may be more easily accepted and more naturally incorporated into a YPAR program since YPAR emphasizes youth voice and youth-driven action, which are needed for successful YPE. Therefore, YPAR can provide a setting from which to study the process of involvement in YPE, an area of study still being developed.

Study Rationale and Contribution

Case study research and practitioner reflections have made a strong case for the benefits of both YPAR and YPE. YPAR scholars have produced a plethora of compelling case studies and descriptions of the experiences of young people when involved in participatory action projects (Camarota & Fine, 2008; Foster-Fishman, Law, Lichty, & Aun, 2010; Ginwright, Noguera & Cammarota, 2006). Scholars have also begun developing theories and rationale behind the process-related impacts of participatory evaluation (Cousins & Chouinard, 2012; Daigneault & Jacob, 2009). These include reasons why involvement in participatory evaluation might impact participants in ways which extend beyond the program itself. In particular, three key elements have been identified as important in participatory evaluation: 1) diversity of participation, 2) control of stakeholders in decision-making, and 3) depth of participation

(Cousins & Whitmore, 1998; Daigneault & Jacob, 2009). This study alters two of these elements, depth of participation and control of stakeholders (in this case participants) in decision-making, in order to draw more understanding of the mechanism of participatory evaluation with youth.

The YPAR projects used in this study comes from a program called Youth as Researchers. This program is a YPAR curriculum developed by The National University of Ireland at Galway within the Child and Family Research Centre with intention to teach youth to conduct youth-led community action research (NUI Galway, 2016). The program trains youth across six different modules covering key research design and methodology content areas. The goal of the program is to be an accessible resource for existing youth organizations interested in supporting youth-driven social change research.

This study took place with 66 undergraduate students at Penn State University. These students were recruited through fliers and email list serves and invited to participate in what was advertised as a social justice youth-driven research project. All interested students were asked to fill a form indicating their areas of interest and students were grouped into seven different groups based on similar interests. The project took place over 10 weeks during the Fall 2017 semester. Students were supported by the program by receiving a thorough research training and having weekly face-to-face update meetings with program workers. Each group was visited during their weekly meeting by program workers once during the 10-week period to assist in technical support for the research design process. All stages of the research process, from topic choice, design, methods, data collection, and analysis, were conducted by the youth participants themselves.

This study utilized a quasi-experimental design to ascertain whether involvement in YPE changed youth's experiences of their Youth as Researchers (YaR) projects. To do this, this study

invited half of all Youth as Researchers groups at Penn State in 2017 to engage in a very *hands-on* evaluation, while the other half engaged in a *hands-off* evaluation. The study results compare and interpret these findings. The study used mixed methodology within both the research design and analysis. At the design level, the study used a traditional post-positivist quantitative design (comparison group design i.e. quasi-experimental design). However, the treatment in question is in fact constructivist in ideology and qualitative in nature as it asked youth to reflect and explore their own experiences in their YaR projects and invited their participation to lead the nature and design of these reflections. At the analysis level, quantitative pre- and posttest surveys were given to capture any measurable changes in respondents who engaged or did not engage in the participatory evaluation. These quantitative results were translated into qualitative groupings (i.e. discrete categories) and thematic analysis of focus group data with youth after their projects ended was conducted to better understand the differences in these qualitative groupings.

The intention of this design and analysis was to use the benefit of a structured research design (quasi-experimental design) to preemptively measure process related outcomes of participatory evaluation with youth, which so far have primarily been measured only qualitatively and often post-hoc. This study attempted to determine whether there was any indication that participatory evaluation influenced youth's experiences of their Youth as Researchers projects. The mixed method design of this study (Creswell & Plano Clark, 2011; Morgan, 2007) means that this study did not attempt to provide statistical precision of measurement outcomes through a large sample of cases, nor an in-depth description of very few cases, but combined methodology and results from both quantitative and qualitative approaches to demonstrate that there is enough evidence to *indicate* that participatory evaluation is not a neutral activity, but impacts youth's experiences of their YaR projects.

The overarching research questions guiding this study were: *Are there measurable and interpretive differences among YaR groups at Penn State? Can any differences in YaR groups be explained by their participation in the evaluation of the program?*

This study examines this overarching question at three different socio-ecological levels: individual changes, relational changes, and community/organizational changes. The constructs and variables incorporated into this study within each of the three areas were taken from past literature and data was gathered from both focus groups and pre/posttest surveys.

RQ1: Does participation in YPE lead to different individual-level outcomes in participants' experiences of the Youth as Researchers program than those who do not participate in YPE?

To answer this question, mixed methods data was collected across three broad areas: a) learning and skills, b) motivation and value, and c) social-emotional-cognitive traits.

RQ2: Does participation in YPE lead to different relational-level outcomes in participants' experiences of the Youth as Researchers program than those who do not participate in YPE?

To answer this question, mixed methods data was collected across two areas: a) emotional relationship to others, and b) functional relationship towards others.

RQ3: Does participation in YPE lead to different community or organizational-level outcomes in participants' experiences of the Youth as Researchers program than those who do not participate in YPE?

To answer this question, mixed methods data was collected across two areas: a) emotional relationship to community, and b) functional relationship to organizations/community.

Structure of the Dissertation

This dissertation contributes to scholarship around participatory evaluation theory by providing empirical measures of participatory evaluation outcomes while systematically altering depth and control of decision-making aspects of participation. To date most studies of participatory evaluation have relied upon narrative case-reflective designs with very few quantitative studies (Cousins & Chouinard, 2012), which this study has sought to incorporate. This study also contributes methodologically to those who work in fields of program evaluation and applied research by displaying how mixing quantitative and qualitative methodology can contribute to a fuller understanding of how young people experience involvement in action research projects, and how further involvement in participatory evaluation interacts with these experiences.

This dissertation has six chapters. In the second chapter the theoretical and historical trajectory of evaluation and specifically participatory evaluation is explored. Chapter 3 summarizes literature related to youth's participation in research and evaluation. Chapter 4 describes the methodology used throughout the study, including descriptions of the Youth as Researchers program, data collection methods, and the participatory evaluation intervention. Chapter 5 summarizes the overarching qualitative and quantitative findings while Chapter 6 discusses and concludes the relevance of the study findings for the advancement of participatory evaluation theory and practice.

CHAPTER 2

THEORY AND HISTORY OF PARTICIPATORY EVALUATION

Introduction

Program evaluation as a social reality is a unique element to study. It sits at the crossroads between objective science and social values. It is a site for methodological battles seen throughout the social sciences, and is a professional field growing rapidly. Within its various approaches lie debates about values, resources, interpersonal relationships, and power (Dahler-Larsen, 2012; House & Howe, 1999). Through its findings we learn about the social world by learning about which programs work, which don't, and why (Coryn, Noakes, Westine, & Schroter, 2011; Chen, 1990). Evaluation also provides a chance to reflect on program efforts and the values that drive why some social programs exist over others and why they are carried out the way they are (Schwandt, 1991; House, 2015; Astbury, 2016). Rather than basic research which seeks to understand the social world as it is, evaluation research seeks to understand how we alter the social world to be more as we wish it were.

It is more common for evaluation to focus on the plans and outcomes of programs while spending less time and attention to the process-related factors of how programs function. Participatory evaluation (PE) is a unique approach to program evaluation in which program participants are invited into the evaluation space (Cousins & Whitmore, 1998; Weaver & Cousins, 2004). It is well positioned to aid in the learning about program relational processes because it invites participants to take part in the defining, questioning, and analysis of their own program experiences.

This chapter will briefly describe the history of program evaluation as a field as well as the diverse trains of thought regarding theoretical developments in the field. The rationale for studying PE specifically will be explained and two key approaches to it will be defined. Finally, the contribution of this study to the broader field of PE will be explained.

Evaluation: Exploring the Social Life of Programs

Given the diversity of social programs and underpinning values, it should be no surprise that program evaluation holds a plethora of approaches, values, and philosophies. Evaluators are trained and come from many different fields of primary study and bring with them corresponding diversity of thought. While this allows evaluation to be a rich and multi-faceted field, it also leads to inherent disagreements and debates among scholars (Norgbey, 2016; Shadish, 1995; Alkin, Patton, & Weis, 1990). Moreover, given that evaluation is an applied social science endeavor, the same debates between qualitative and quantitative paradigms and methodology that have embroiled the social science fields in years of debate have not spared the evaluation field (Cook, 1997). A brief history of the development of program evaluation into a field as well as various theoretical approaches through which it has developed will be explored before describing participatory evaluation as the specific evaluation approach used in this study.

Historical Background of Program Evaluation

In order to understand participatory evaluation, it is important to have a wider understanding of the historical, social, and political contexts which led to the rise of program evaluation as a field of practice and study. Program evaluation uses social science methodology to conduct applied research about social programs to make judgments of the value of social

programs, suggest ways for improvement of these programs, and to champion successful programs as examples of best practice (Spaulding, 2014; Shadish, Cook & Leviton, 1991). While now a mainstay of the current social programming landscape, the program evaluation field was relatively novel prior to the 1960s. However, the historical background of program evaluation in the United States can be roughly traced through the history of educational assessment and evaluation from as far back as the late 1700s.

Madaus & Stufflebeam (2000) provide a brief historical overview of the development of program evaluation as a field, specifically focusing on educational evaluation. They describe seven key stages within the United States which led to the advancement of program evaluation. The first is the Age of Reform (1792-1900) in which the first quantitative scores for students' exams were recorded in the United States. The industrial revolution at this time led to an increase in social agencies as well as more scrutiny and attention to how these agencies were functioning. The second stage is termed the Age of Efficiency and Testing (1900-1930) in which testing in schools became more common and more focus was paid to student outcomes as a measure of teacher efficacy. The Tylerian Age (1930-1945) marked a time when systematic activities were incorporated into the way the US thought about education. In particular, the rise of planned activities, the development of curricula, and careful assessment of that curricula were all hallmarks of this timeframe. The Progressive Education Movement also occurred during this time, and evaluation was used to compare progressive versus traditional school outcomes. The Age of Innocence (1946-1957) was a time of rapid expansion of public education and standardized testing in the wake of WWII.

The Age of Development (1958-1972) marked the critical stage of program evaluation's development into a robust field and marked the emergence of program evaluation outside of the

educational realm. In the 1960s, the Kennedy and Johnson administrations increased federal funding for large social programs. Industrial psychology and business management experts were recruited to serve in these political administrations. As a result, it was the research methodology perspectives of the industrial psychology and business management fields that led to a focus on accountability, achievement of expected outcomes, and experimental design preferences (Madaus & Stufflebeam, 2000).

The 1960s also marked a time of growth of program evaluation as a feasible professional option for many social scientists. The sudden demand for social programs preceded the supply of trained researchers with the right skillsets to carry out these new projects. Graduate training with an eye towards these needs increased and with them, the possibilities for career paths as evaluators within and outside of academia. As these new graduates populated government and academic positions, the field of program evaluation underwent the Age of Professionalization (1973-1983) through numerous journals, books, manuscripts, and technical reports being established and written.

Since the 1980s the field of program evaluation has continued to spread and is now a mainstay in government as well as nonprofit social programming settings, a time period called the Age of Expansion and Integration (1983-2001). Today there are well-established professional associations for evaluation as well as professional standards for evaluation (AEA Guiding Principles, 2013). Professional memberships have grown, and most large research-based universities provide some courses or training in program evaluation in various social science fields. Program evaluation has clearly marked itself as a permanent field of work and study and is common in governmental, international development, community development, and educational settings today.

Multiple Areas of Focus within Evaluation Scholarship

Just like any field of study, scholars of program evaluation have advanced theoretical approaches which differ in focus and perspective. Since evaluators come from a variety of professional disciplines and are influenced by the approaches to social science in their academic training, there are distinct differences among scholars and plenty of debates. A helpful way to understand this broad field is to consider the key foci of these scholars and what component of evaluation work their knowledge contributes. Some common delineations include those that focus on the use of evaluation findings for accountability, evaluation as a tool to advance social justice and social values, and methodological innovations and advancements for the precision of measurements about programs (Alkin, 2004; Chelimsky & Shadish, 1997; Stufflebeam, 2000).

Alkin (2004) is a historian and scholar of program evaluation who has described the theoretical history of program evaluation as a metaphorical tree with three branches. Within the trunk of the tree lies two key pillars of evaluation's foundation- accountability and social inquiry. The three branches include values, methods, and use. Alkin's delineation was chosen to illustrate these distinctions due to its thoroughness and simplicity.

The first branch on Alkin's tree is the methods branch. These are scholars whose key contribution to the evaluation field have been through introducing new methods to use during evaluation or improving our understanding of existing methods. There have been debates and developments within this methodological branch over whether the right focus of evaluation should be on strong internal validity (confidence that results of a program/study are true) or external validity (confidence that lessons learned from a program/study can be true in other settings). Campbell & Stanley (1966) first pushed this discussion by recognizing that for many settings, randomization of participation in a treatment group is simply not an option and called

for quasi-experiments as a legitimate alternative for evaluation research. Some have pushed back and reasserted the importance of randomization at the treatment level in order to increase internal validity (Boruch, 1997; Boruch, Synder, & DeMoya, 2000). Others have pushed for a focus on external validity so that programs and evaluation findings can be generalized to other settings rather than focusing too much on the internal precision of evaluation results (Rossi, Freeman, & Lipsey, 1999; Cronbach, 1982; Cronbach & Associates, 1980).

Two other methodological points have been common within the methods branch- the focus on the development of evaluation and program theory as well as the focus on contextual elements in which evaluations take place. Scholars focused on the need for evaluation and program theory have argued that by focusing on social science theory during evaluations, evaluation can contribute to wider social science knowledge (Suchman, 1967). This focus on theory can help us deepen our understanding of why some programs lead to certain outcomes and others lead to other outcomes (Chen & Rossi, 1983; Chen & Rossi, 1987). Theory-driven evaluation therefore, moves evaluation beyond descriptive reports and into a substantial knowledge-building enterprise. Finally, focusing on the contextual elements in which a program evaluation takes place is important since each evaluation takes place within a specific political environment which may or may not lead to immediate program change, but may shift the contextual environment over time (Weiss, 1973). Relatedly, methods and data collection procedures should be tailored to the context in which the evaluation takes place, and multiple methods of data collection should be employed (Cook and Campbell, 1979).

The second branch on Alkin's tree is one he calls "valuing." These are scholars who pay special attention to whose value is represented in the evaluation process and how the process of casting value or judgment on a program unfolds. Some see the role of an evaluator in an

important moral light. For these, it is critical that an evaluator use his or her expertise and qualifications to pass explicit judgment on a program (Scriven, 1983; Eisner, 1994). Others believe that stakeholders must be involved in deciding the value of a program and that the evaluator cannot do this work alone. Stakeholder perspectives are important since knowledge is contextually dependent (Stake, 1975) and differs depending on the audience in question (MacDonald, 1979). According to this argument, without close involvement of stakeholders, true understanding of the program would never occur (Guba & Lincoln, 1989).

The final branch of the evaluation theory tree is “use.” This branch holds scholars who have advanced techniques to enhance the use of evaluation findings. Some evaluation scholars focus on how to tailor evaluation procedures in ways to help improve management decisions in order to foster easy adaptation of findings to program use (Stufflebeam, 1983; Provus, 1971; Wholey, 1983; Patton, 1997). Others have found evaluation can foster learning outcomes for people and organizations, which can increase appreciation for and use of evaluation results (Preskill & Torres, 2001; Cousins & Earl, 1995). Still others consider evaluation a chance to empower, engage, and equip organizations and stakeholders more broadly by involving them in discussing their own values (Alkin, 1991), through engagement in dialogue and reflective thought (King & Stevahn, 2013), and through conducting evaluations on their own (Fetterman, 2001; Cousins & Earl, 1995).

In all, these three branches of evaluation theories are either focused on very specific practice (theories of use), broad philosophical considerations (theories of value), or the meaning and measurement of knowledge (theories of methodology). In simplistic terms, these theories can be thought of as overly broad or overly specific. Yet, there is one developing theory of

evaluation which is emerging as a mid-level theory, useful for empirical study, practice, and reflective knowledge-building. This developing theory is that of participatory evaluation.

Participatory Evaluation: A Window into Program Relationships

In today's world of emphasis on rigor, objectivity, big-data, and evidence-based practice, why would a researcher choose to focus on participation, let alone advance it in evaluation practice? To answer this question, it is important to state that participatory evaluation is more than just an approach to evaluation practice. Over the years it has emerged as a form of evaluation with philosophical roots, pragmatic outcomes, and a strong conceptual framework (Brisolara, 1998; Weaver & Cousins, 2004; Cousins & Whitmore, 1998). Not only does participation in an evaluation have outcomes relevant to the goals of social programs (Zeller-Berkman, Munoz-Proto, & Torre, 2016), but careful study of the process and effects of participatory evaluation can help us understand relational aspects that effect programmatic settings. The best laid plan of any program can be derailed, or enhanced, by relational factors not often studied or planned for. Moreover, the study of participatory evaluation can help open the door to the more contemporary discussion about sustainability of social programs and how to understand the programmatic setting as a complex system, full of nonlinear interactions, primary and secondary effects, and unforeseen consequences (Lich, Urban, Frerichs, & Dave, 2017). Therefore, the study of participatory evaluation can advance our understanding of social life itself.

Importance and Rationale for Studying Participatory Evaluation

While the study of any program evaluation approach or use leads insights into program dynamics, power relationships, and social values, there are insights that can be gained from *studying* participatory evaluation in particular. As mentioned above, theoretical development within the program evaluation field can be thought of as falling within methodological considerations, value considerations, or considerations regarding use of evaluation findings. Participatory evaluation cuts across both value and use considerations and can build connections between these two areas. By involving stakeholders and program participants into the evaluation process, researchers can study the way that the process of being in a program interacts with participants' relationships to each other and to program staff, which can then effect their perceptions of the program as well as program outcomes. It allows us a window into the way that programmatic relationships and processes influence outcomes (Morabito, 2002), a dynamic not often captured in more linear approaches. It allows for a window into the "black box" of program successes and failures.

Some of the rationale for the *use* of participatory research mirrors three common justifications for collaborative inquiry (Levin, 1993; Mark and Shotland, 1985; Garaway, 1995; Greene, 2000; Cousins & Chouinard, 2012). First, collaborative approaches to research are more democratic because they allow for the voice of those affected by a situation to have a say in the research in question. Second, collaborative approaches to research can improve the understanding of the issue in question through collecting information closer to those with experience and local knowledge about the issue. Third, collaborative inquiry enhances evaluation use and makes results of a study more salient to those who make decisions.

Participatory evaluation (PE) itself has been described in two ways, as being either practical in nature or transformative in nature (Cousins & Chouinard, 2012; Brisolara, 1998). While these are not mutually exclusive categories, practical participatory evaluation (PPE) approaches focus on the use of participants to ease the evaluation process through organizational buy-in for the evaluation, improvement in data quality, and use of evaluation recommendations and results (Cousins & Whitmore, 1998). Transformative participatory evaluation (T-PE), on the other hand, focuses on the democratic process of inviting participants who often do not have a voice in the way programs are designed and structured, to actively shape the evaluation questions and process (King, Cousins, & Whitmore, 2007). In doing this, transformative evaluation challenges power dynamics within organizations and communities. In this way, we can see that PPE falls heavily within the evaluation use justification for collaborative inquiry and T-PE falls heavily within the democratic justification. Both strands address the improvement of knowledge.

Practical Participatory Evaluation

While these two streams of PE are not mutually exclusive, they have unique historical foundations which differ. Practical participatory evaluation has been developed as an idea and practice primarily in Western countries, and has use of evaluation findings as a core goal (Brisolara, 1998). Involvement of program stakeholders in the evaluation is done with hope that this participation will improve the relevance of the evaluation and foster a sense of ownership of the evaluation findings (Cousins & Whitmore, 1998). Together these will lead to higher use of the evaluation findings. From utilization literature, using findings can mean anything from instrumental support for decisions, to educational learning, to symbolic use (i.e. to advance a

political agenda). Therefore, PPE is heavily aligned within the “use” branch of the evaluation tree.

Empirical research about participatory evaluation and utilization research has shown that use of findings is a function of more than just the results of an evaluation, but also includes elements of the way the evaluation was conducted (Cousins, 2007). These are sometimes called “process use” (Patton, 2008). Process use have been considered important in the utilization literature, including in PPE. Process effects include the “soft” skills and interactions that occur as a result of participating in an evaluation. The effect of these are not often studied. Examples of process effects include things such as attitudes towards oneself, attitude towards evaluation, and practical skills from engaging in the evaluation (Patton, 2008).

Transformative Participatory Evaluation

Transformative participatory evaluation (T-PE) focuses on emancipation of social injustices, empowerment of participants, and broader social change as explicit goals of involving program participants in an evaluation (Cousins & Whitmore, 1998; Brisolara, 1998). The roots of this strand of thought have originated heavily from community development, international development, and adult education. Scholars who have advanced this work have primarily resided in developing country settings (Fals-Borda & Anisur-Rahman, 1991; Fernandes and Tandon, 1981; Tandon, 1981; Kassam and Mustafa, 1982). Work and writings about collaborative research, participatory action research, and other participatory approaches in community and development projects have been influential (Heron, 1996; Freire, 1971). T-PE focuses heavily on the values branch of the before-mentioned evaluation theory tree.

In T-PE there is a more open acknowledgement and concern over power dynamics and how these may be transformed through the evaluation process (Hall, 1992). Scholars in international development had been critiquing traditional research methods as imposing colonial notions of objectivity and relational distance into the research relationship that did not reflect local cultures and local knowledge (Tandon, 1981). As practitioners in fields of both international and community development were close to suffering and disenfranchisement, they begin to find ways to incorporate within their practice ways that would work to improve these situations (Cousins & Whitmore, 1998). Therefore, T-PE has hints of revolutionary intentions. A major part of T-PE is careful attention to who makes knowledge and how participation in knowledge-making can enlighten participants to structures of power around them and give them practice and skills in reflecting upon and thinking critically about how they can challenge the status quo of the settings around them (Brisolara, 1998; Freire, 1971). In T-PE power dynamics are broken down in dialogue and sharing of responsibilities between researcher and the researched. Evaluators then, take on unique roles different than those they are traditionally ascribed. Brisolara (1998) describes how “T-PE inquirers adopt a variety of roles in the interest of engaging the participation of people and their ideas; evaluators may act as change agents, empowerment resources, educators, co-inquirers, cultural brokers, or critics” (p. 31).

While many of the founding ideas of T-PE have primarily originated from developing country scholarship, there have been important contributions from North America as well through Highlander Researcher and Education Center (Gaventa, 1980; Gaventa & Horton, 1989) and the Toronto Participatory Research Group (Hall, 1981, 1992). There are also approaches which are similar to T-PE which have also influenced its development such as action research (McTaggart, 1991; Noffke, 1994), participatory research (Hall, 1992) and collaborative action

research (Fine and Vanderslice, 1992). T-PE has been influenced by the idea that education and social change can be integrated through social action so that participation in research becomes both an end itself (through learning through doing and creating relationships) and a means to advance social goals (through improved knowledge and social change) (Brown & Tandon, 1983; Lewin, 1946; McTaggart, 1991; Elliot, 1991).

Approach of this Study

While PPE and TPE have different foundational influences and rationales, empirical study about participatory evaluation differs only based on unit of analysis and the underlying argument for using participatory approaches; practical application is much the same. The rationale underlying this study is more heavily influenced by T-PE because the purpose of the empirical study is to capture changes and experiences of participants rather than organizational change or evaluation use. However, the methods used in this study to involve participants and the ways in which the impacts were measured can be used for any participatory evaluation setting, whether the rationale for PE is primarily for learning and benefit of the participants, to enhance evaluation use, or a mixture of both.

Theoretical Development of Participatory Evaluation

Writings from the T-PE strands of scholarship and collaboratory research have already made strong philosophical arguments for the importance of infusing participation into the work of research and evaluation (Tandon, 1981; Heron, 1996; Fals-Borda & Anisur-Rahma, 1991). Doing so can fulfill political (fosters democratic interactions), philosophic (brings about better knowledge and understanding), or pragmatic rationales (encourages use of an evaluation's

findings). However, participatory evaluation is currently moving from an approach written about by practitioners either philosophically or reflectively, to a conceptual framework with tentative connections between PE processes, antecedent factors, and outcomes (Cousins & Whitmore, 2012). The overarching purpose of this study is to assist in the push of this conceptual framework into a more robust theory through the development of empirical findings. Through using a preplanned study approach (rather than an ad hoc reflective case study), this study will capture effects of participatory evaluation influences on participants.

Antecedent Factors

Regarding antecedent or contextual factors, evaluator background and role plays an important part in how evaluators approach PE and how participants interact with the evaluator. PE requires evaluators to step into new roles and take on tasks such as facilitation and relationship-building. Many evaluators reflect upon this blurring of roles and boundaries as both a challenge and opportunity for practicing PE (Levin-Rozalis & Rosenstein, 2005; Skolits, Morrow, & Burr, 2009). Factors which play into the program context also matter. The nature of relationships among program participants and stakeholders may mean that PE brings up conflicts not previously addressed (Gaventa, Creed, & Morrissey, 1998; Diaz-Puente, Yague, & Alfonso, 2008) and asks for more time and effort of these same participants than they traditionally are expected to give.

Process Factors

The actual process of participatory evaluation and what it entails has been better documented and developed. There are three key components agreed upon in the literature: 1)

control of technical decision making; 2) diversity among stakeholders selected for participation; and 3) depth of participation. Cousins and Whitmore (1998) initially developed a 3-D image of the process related elements of PE. This depiction visually showed hypothesized core components of PE and has been used to typologize other approaches to collaboratory styles of evaluation (Cousins, 2005). Cousins & Chouinard (2012) have also developed a more extensive linear model of PE in order to try to capture both antecedent and long-term outcomes that might occur as a result of PE. Initial attempts at measurement of levels of PE have also shown promising results (Daigneault & Jacobs, 2009).

Literature on PE has found that it can be a challenge for an evaluator to cede control during an evaluation but that some strategically work to avoid dependency by reducing their level of guidance and involvement over time (Brisson, 2007; Lee, 1999). It is also challenging for evaluators to guide participants to think broadly about program impacts and quality rather than minor programmatic details. High diversity within PE can foster efficient use of resources and allow for many differing opinions to be present during the evaluation (Brandon, 1998; Davidsdottir & Lisi, 2007). However, high levels of diversity of participants can bring up tensions and power dynamics (Lennie, 2005; Mercier, 1997). Maintaining the involvement of a diversity of participants is a time-consuming process and may require conflict management skills of the evaluator. As with any type of participation, motivation and interest in participating in an evaluation may wane with time but may be more easily sustained within organizational cultures that are already inherently collaboratory in nature.

Consequences

Consequences of PE have been discussed through a rich case study narrative literature base. PE can lead to the production of evaluation reports taken as credible by funders and may also foster their use within organizations (Chen et al., 2007; Christie, Montrosse, & Klein, 2005). There are process-related use outcomes found in empirical literature at both the individual and group/organizational levels (Diaz-Puente et al., 2008). It is now well-established that participatory approaches within evaluation can have learning and educational outcomes for organizations (Preskill & Torres, 1999), can enhance or encourage an organization's use of evaluation results (Patton, 2008), and can have psychological and relational influences on people who participate, particularly if their voices are less commonly incorporated in research and evaluation (Fetterman, 2001; King & Stevahn, 2013). Evaluation capacity, ownership, confidence, awareness, and attitudes can all change as a result of participation in an evaluation and skills acquired during PE can be used in other situations (Gaventa, 1998; Johnson, Willeke, & Steiner, 1998). Organizational culture can be influenced towards accepting more inquiry-based decisions (DeLuca, Poth, & Searle, 2009; Rosenstein & Englert, 2008). PE can also help organizations understand how internal and external accountability mechanisms connect with one another, helping to legitimize and demystify why evaluations are done in the first place.

Contribution of Following Study

To summarize, more is known about the interworking of a participatory evaluation (i.e. characteristics of a PE according to evaluators) and the *presumed* outcomes of these evaluations (through case study narratives about evaluators' observations of organizational and participant change) than the *measured connections* between PE processes with either antecedent factors or

consequences on individuals or organizations. The following study focuses on the link between the process of conducting a PE with the potential consequences to participants. The study achieves this by keeping all antecedent factors the same, manipulating two aspects of PE process (depth of participation and control of evaluation), and measuring individual and group level outcomes of PE as a result (see Figure 1 for aspects focused on in this study noted in bold). This study also does this through a quasi-experimental design with both qualitative and quantitative data, a methodologically unique contribution to this topic. Cousins & Chouinard (2012) found that of 121 articles about PE published in (years), 69% were reflective narrative case studies which do not involve triangulation of data but rely upon the evaluator's first-person account of the PE. Therefore, by taking a pre-designed study, focusing on the process-related outcomes of PE, and using a method other than the narrative reflective case study, this study addresses gaps in the literature (Cousins & Chouinard, 2012) which can assist in the continual building of participatory evaluation theory.

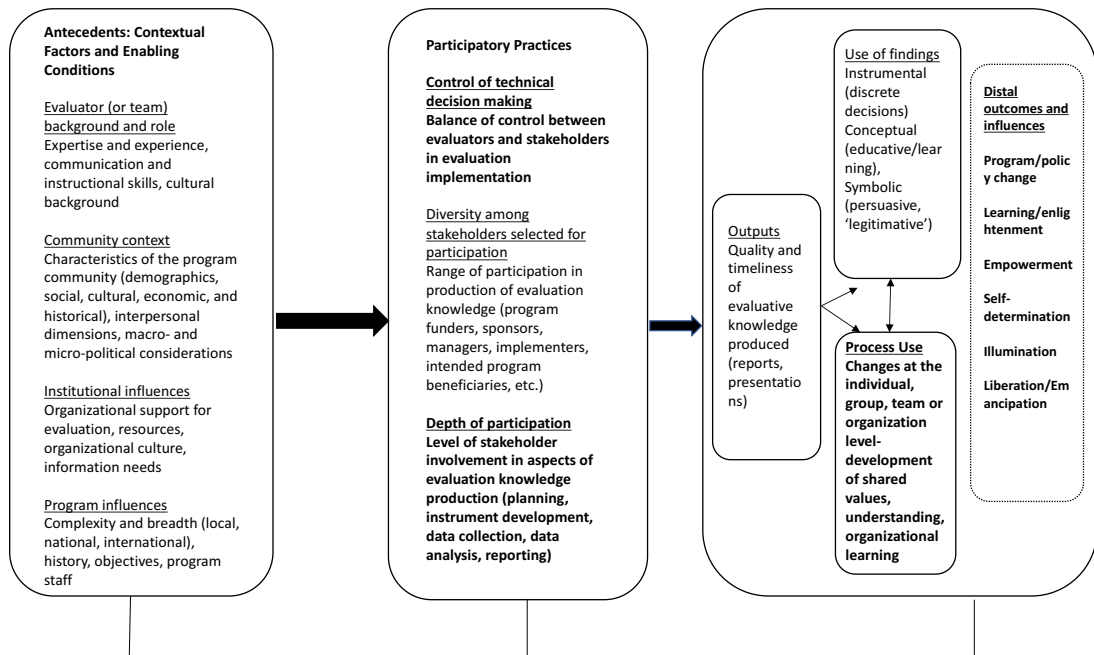


Figure 1: PE Conceptual Framework (Cousins & Chouinard, 2012).

CHAPTER 3

LITERATURE REVIEW

Introduction

Strategies for developing strong, resilient communities must walk hand-in-hand with young people's ideas and needs in order to foster and sustain change (Nitzberg, 2005). Youth are a unique and important group for all communities and reflect the cultural, religious, and ethnic diversity of the communities around them. The community leaders of any town were at one point in their lives, youth, and every youth cohort is harboring the future leaders of their communities. Formative experiences during this transitional time into adulthood are important developmentally for youth as they form their own identities and begin interacting with wider society (Erickson, 1968; Abo-Zena & Pavalow, 2016). The ability to contribute to the community, as well as receiving appreciation for doing so, has been found to be related to youth's motivation for community involvement (Brennan, Barnett, & Baugh, 2007). Important experiences at this time of life, therefore, can shape the development of youth identities and can help foster (or hinder) emerging community leaders and civically engaged citizens.

This dissertation addresses two specific types of youth participation: *Youth Participatory Action Research* and *Youth Participatory Evaluation*. Specifically, this dissertation contributes to the theoretical development of participatory evaluation by examining the effects of having youth participate in an evaluation of a youth program. This chapter will: 1) review the historical use of the terms youth empowerment and youth participation as well as their critiques; 2) compare theoretical approaches often used to study youth participation; 3) describe the two youth

participation approaches in this study - Youth Participatory Action Research and Youth Participatory Evaluation.

History of Youth Participation and Youth Empowerment

To understand the terms youth empowerment and youth participation, it helps to first consider the historical climate and trajectory with which the terms empowerment and participation first emerged as common in the social programming literature. Much of our understanding of the use of the terms participation and empowerment can be traced through the history of international development, a field which has heavily influenced the proliferation of programming with these terms and contributed to critiques about their use (Cornwall, 2008; Cornwall & Jewkes, 1995; Chambers, 1994; Gaventa & Cornwall, 2006; Cooke & Kathari, 2001; Hickey & Mohan, 2004). The post WWII era left the United States as a hegemonic power in the wake of the wars which had devastated Europe (Peet, 2009). In this setting, global international organizations such as the World Bank and the International Monetary Fund were created to help organize and fund development projects to repair infrastructure and stabilize economies. These initiatives and programs quickly spread to developing countries outside of Europe as a way to try to aid in the economic growth and appease the political climate of anti-colonialism and independence.

This linear thinking towards development (Rostow, 1960) was heavily challenged during the disruptive social changes in the 1960s-1970s. During this time, many former colonial countries gained their independence and within the United States the battle for a variety of rights-based causes were underway. Globally, indigenous, local knowledge, and environmental rights movements gained traction. During these rights-based movements, scholarship from developing countries, particularly Latin America and African scholars, also began to be recognized for pushing ideas such as non-traditional education (Freire, 1971), participatory involvement of local stakeholders during development programs (Chambers, 1994), during research and evaluation (Tandon, 1981; Fals-Borda & Anisur-Rahman, 1991; Fernandes & Tandon, 1981), and even the right to not be “developed” or controlled in ways which naturally problematized developing country populations (Escobar, 1995). Liberation therefore, was not just political rights, but cultural rights. Uniqueness of non-Western ideas became the foundation for many of the ideas about self-power, self-reliance and appreciative or cooperative inquiry (Heron, 1996). These ideas would go on to form the original foundation of the use of terms such as “participation” and “empowerment.” This conceptualization of liberation meant that individuals should be empowered to live lives true to their culture and be able to participate within decisions or projects affecting their lives.

The 1980s-2000s brought with it a shift in the focus of large development projects to the idea of “governance” as a key developmental goal. The fear and focus on the Cold War meant that the United States and its allies were acutely interested in the governing and ideological practices of other, particularly newly independent countries (Tarnoff & Lawson, 2009). Also, the focus on economic austerity and neoliberalism meant that the United States was interested in ensuring that developing countries spent money in ways which fostered free trade and global

economic production. It was during this time that the terms “empowerment” and “participation” changed from ideological standpoints to methods of practice which could support the focus of self-governance (Cornwall, 2006). Participation and empowerment became part of the lexicon of development practice (Sachs, 1992; Cornwall & Brock, 2005). The term “empowerment” shifted from an ability to *make choices* for oneself to *doing for oneself* (i.e. not needing assistance).

As part of the development lexicon, there grew many different ways of participation, both in development work and in research and evaluation. A short summary of a few key types of participation can be seen in Table 1 (adapted from Hickey & Mohan, 2004, p. 5-9).

Table 1: Summary of Participation Approaches in International Development

Era	Approach	Characteristics of Participatory Practice
1940s-1950s	Community development (colonial)	Adult literacy and extension education, institution-building, leadership training, development projects
1960s-1970s	Community development (post-colonial)	As above; also health, education
1960s	Political participation	Voter education; support for political parties
1960s-1970s	Emancipatory participation (EP)	EP: Participatory action research, conscientization, popular education, support for popular organizations
	Liberation theology (LT)	LT: Form base Christian communities, training for transformation, popular education
1970s-1990s	‘Alternative development’	Popular education; strengthen social movements and self-help groups
1980s-present	Populist/Participation in development	Failure of top-down projects and planning; participation required to empower people, capture indigenous people’s knowledge, ensure sustainability and efficiency of interventions. Participatory practices: rural/urban appraisal, learning and action, monitoring and evaluation; NGBO projects.
Mid 1990s-present	Social capital	Local institution building, support participation in networks and associations
Late 1990s-present	Participatory governance and citizenship participation	Convergence of ‘social’ and ‘political’ participation, scaling-up of participatory methods, state-civic partnerships, decentralization, participatory budgeting, citizens’ hearings, participatory poverty assessments, PRSP consultations

Efforts to Encourage Youth Participation

In the background of international interest in the concept of participation, a focus on youth participation also arose. The United Nations played a key role in this advancement as it championed a variety of initiatives, papers, and conventions regarding youth participation. The UNESCO Growing Up in Cities program, a global effort to involve young people and children in creating ideas and solutions to improve their lives in urban areas (Chawla & Driskell, 2006), and the UN Convention on the Rights of the Child were particularly influential. Reports and essays conceptualizing youth and children's participation were commissioned by the UN (Hart, 1992; UN World Youth Report, 2003).

It is not uncommon now to have youth serve on local government councils or committees, or to hold other formalized roles within their schools or youth organizations (Checkoway, Allison, & Montoya, 2005; Camino & Zeldin, 2002; Ozer, Ritterman, & Wanis, 2010). This has made youth participation a common practice (at least in this particular role), in many places around the world. The global economic downturn in the late 2000s and the rise of the youth population globally due to demographic trends now means that international organizations and agencies have an increased interest and urgency towards youth and their positive involvement, especially in light of potential negative outcomes like youth extremism (Brennan et al., 2015). Topics related to youth participation, such as youth civic engagement, have been a recent focus of UNESCO (Brennan & Dolan, 2015).

Frameworks for Understanding Youth Participation

There are two overarching approaches in theoretical frameworks used to understand youth participation: psychological and ecological. The key distinction among these viewpoints is whether youth are studied primarily as individual units or whether they are considered embedded within their environments. Psychological approaches focus on the young person as the unit of analysis, looking for internal and personal traits which can explain their behavior. Ecological approaches focus on the environmental context as the unit of analysis and look for ways in which youth interact with and are influenced by the people and places around them (Gal, 2017). In this approach, youth are not just individuals, but embedded individuals who are parts of families, peer groups, and communities, therefore youth development and community development are intertwined (Brennan, 2008; Villaruel, Perkins, Borden, & Keith, 2003; Zaff, Jones, Donlan, & Anderson, 2016; Gal, 2017). Both overarching approaches are important and valuable to understanding youth, their immediate relationships, and how youth contribute to social and community life.

During the 1990s, the Positive Youth Development field emerged as a change in practice and thought about youth and their abilities. This viewpoint examines the capabilities of youth rather than their pathologies (Lerner, Dowling, & Anderson, 2003; Benson & Pittman, 2001). Therefore, what the Positive Youth Development movement has added to the discourse about youth development is an appreciative focus on youth's abilities and the understanding that they can develop and learn in contexts that are informal and in community settings (Lerner & Lerner, 2013). This took the focus away from family life and formal educational settings and opened up lines of study that examined young people's development and actions in the diverse social settings they inhabit outside of school, such as after school programs, community organizations,

and youth groups. Positive Youth Development then, brought together the fields of community development and civic engagement to the already well-established youth development fields from biology, psychology, and social work.

Psychological Approach

Resiliency theory focuses on why some youth thrive despite negative life circumstances or factors in their life that would predispose them to negative outcomes. This way of viewing youth helps us to understand what positive factors in a youth's life disrupt these negative cycles. Understanding these positive factors which help youth cope and overcome difficult lives can then be leveraged and promoted through programs and resources. Resiliency theory considers assets residing within an individual youth as well as resources found outside of individual youth. Different models exist within resiliency theory to explain relationships between variables and outcomes (Zimmerman, 2013). In the compensatory model, positive factors help to neutralize negative risk factors (Zimmerman, Steinman, & Rowe, 1998). In the protective factor model, protective factors can interact or moderate the impact of negative factors (Hurd & Zimmerman, 2010). The challenge model of resiliency considers moderate challenges as beneficial since they can help youth practice measures needed to overcome more serious future challenges (Rutter, 1987).

Resiliency has undergone waves of study with different foci. This approach has deepened in its sophistication over time to identify first correlates with resiliency, then processes helping to explain resiliency, processes to actively promote resiliency, and in the most recent wave, a systems approach towards resiliency which considers multiple factors and how these influence each other (for example, how biology, social circumstances, and psychological states of the child/youth in question interact) (Masten & Obradovic, 2006). Resiliency can be a capacity, a

process, or a result (Lee, Cheung, & Kwong, 2012; Catalano et al., 2004; Richardson, 2002; Masten, Best, & Garmezy, 1990). Because resiliency can be understood in these various ways, it can be either an antecedent or a consequence of positive youth development, meaning it can be a prerequisite of positive youth development efforts or a natural outcome of these efforts (Lee et al., 2012).

There are five key attributes of resilient children; 1) social abilities (ability to care for others and maintain positive relationships), 2) problem solving abilities (cognitive abilities), 3) critical consciousness (awareness of social inequalities), 4) autonomy (sense of identity and independence), and 5) sense of purpose (future aspirations) (Cesarone, 1999). Those using a resiliency framework will be most concerned with targeting youth who are the most vulnerable and will prioritize time and money to be spent finding and targeting these at-risk youth and tailor programming to foster these key attributes. In summary, a resiliency lens views youth participation as a *means to foster youth's individual ability to withstand challenges* from negative life circumstances, and participation achieves this primarily through advancing the five abovementioned attributes.

Ecological Approach

In contrast to mainstream psychology, Bronfenbrenner's (1979) social-ecological theory posits individuals within the sphere of influence and ecological influences of their social relationships. This theory considers that individuals are affected by their relationships with others at multiple levels and that these levels can be understood as being more or less proximal or distal in their intensity while still having levels of influence. Micro-level relationships occur between friends and family and are most potent, meso-relationships between groups of others

and communities are situated at a mid-level of influence, and macro-relationships reflect broader social norms and institutions which exert influence on an individual indirectly.

Ecological ways of thought, including Bronfrenbrenner's work, emphasize the duality of influence of young people- youth influence others around them and others influence youth, and this happens at multiple levels. Utilizing social-ecological theory in exploring youth participation reminds scholars to consider the environment surrounding young people, and calls for research which widens the roles of youth beyond situations in which youth interact only with other young people (Gal, 2017). Youth participation under Bronfrenbrenner's theory could be considered *an activity which strengthens or weakens bonds a youth has within his/her environment*.

Bronfrenbrenner's (1979) theory is closely aligned with another ecological theory which focuses on community as the unit of analysis, community interactional theory (Wilkinson, 1991). This theory conceptualizes community as the connections and interactions of individuals with common, local interests (Wilkinson, 1991). Community interactional theory defines community interaction as a variable that is dynamic over time. Strong interactional ties develop community capacity and resiliency, which allows a community to adapt and change to outside situations (Bridger & Alter, 2008). Individual projects improving one area of community life may serve as the setting for which the interactional process occurs. In this way, because youth and community are part of the same whole, changes and efforts to involve young people in their communities can create and foster the setting in which deeper community interaction occurs, strengthening the overall ability of the community to recognize diverse viewpoints, identify needs, and create solutions.

Therefore, beyond the individual benefits that young people can have as a result of their involvement in community or social issues, communities themselves are strengthened when youth voices are considered, heard, and incorporated into community life. Strong intra-

community relationships have regular interaction, include diverse groups, and are interdependent upon one another to fulfill local needs (Wilkinson, 1991; Bridger & Alter, 2008). Solving problems together can be a bonding activity which fosters community agency and resiliency (Brennan & Luloff, 2007). While diversity is a critical component of a strong community field, youth are a unique population which is often excluded from decision-making and community discussions. They are often not perceived as being civically involved or engaged in community work because society defines citizenship in ways which exclude youth (Roholt, Hildreth, & Baizerman, 2009). However, as community interaction theory would emphasize, youth involvement, as any involvement of typically excluded members of a community, can have ripple effects of benefits beyond an individual project or an individual group of people. It can strengthen community bonds and pathways towards regular interaction which improves an entire community's ability to come together to tackle unknown challenges and opportunities in the future. Youth participation, using this lens, is viewed as *a form of community interaction which fosters relationships within a locality*.

Therefore, these different ways of viewing youth development provide different ways of understanding youth participation. Resiliency theory creates structure to understand how participation may create personal and social hardiness in youth, particularly in fostering skills and dispositions to help vulnerable youth overcome current and future challenges. Social-ecological theory provides structure to study the ways that a young person takes on many different roles at different social levels in their lives, with other youth, with their families, with other adults in their community, and how these various social spheres influence youth. Community interaction theory provides conceptual structure into the ways youth involvement may support the furtherance of broader community relationships. Positive youth development,

while an approach rather than a theory, views all youth as worthy of engagement and participation, not just those with unique vulnerabilities or struggles. This approach helps to connect the preceding three theories by showing that not only can individual youth benefit who are vulnerable (resiliency), but youth support done in natural settings (social-ecological) with chances to interact and work within their communities (community interaction) can have lasting benefits for young people and the places they live.

Typologies of Youth Participation

Given the applied nature of much youth participation work and research, youth participation has been typologized in many different ways, often with the goal of making discussions around youth participation clearer for practitioners to use within their youth development practice. One of the most famous youth participation visuals is Hart's Ladder of Participation (1992). This typology categorizes higher and lower levels of children and youth's participation as rungs on a ladder. Those on the lowest rungs are forms of nonparticipation (manipulation, decoration, and tokenism) and those at the higher rungs differ based on degree of participation. The highest form is child-initiated participation where children share decision making with adults.

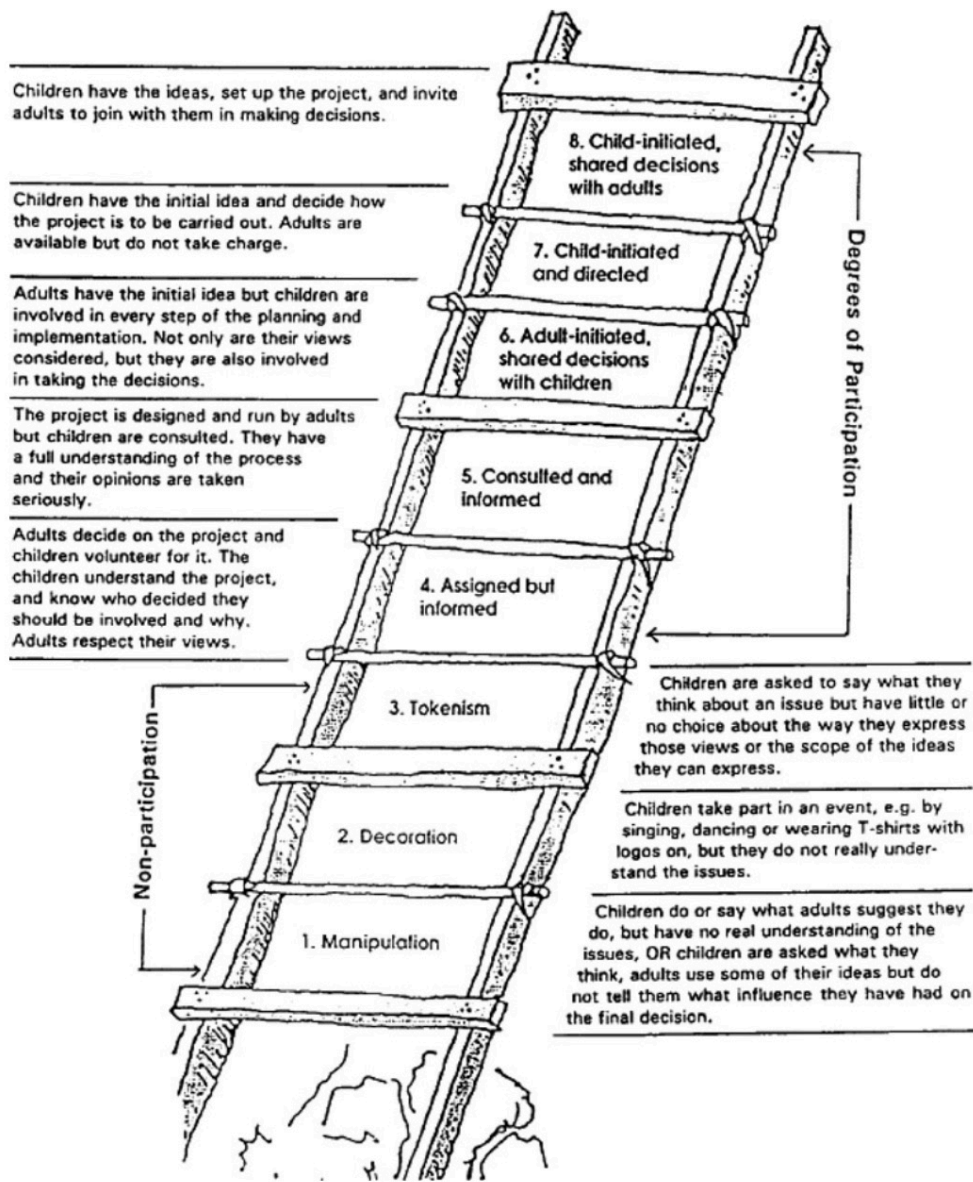


Figure 2: Hart's Ladder of Participation (Hart, 1992)

Treseder (1997) conceptualizations participation as a non-linear approach in which there are five different degrees of participation, all of which are useful and important for different situations.

His typology shows these five types as equal and independent components of participation.

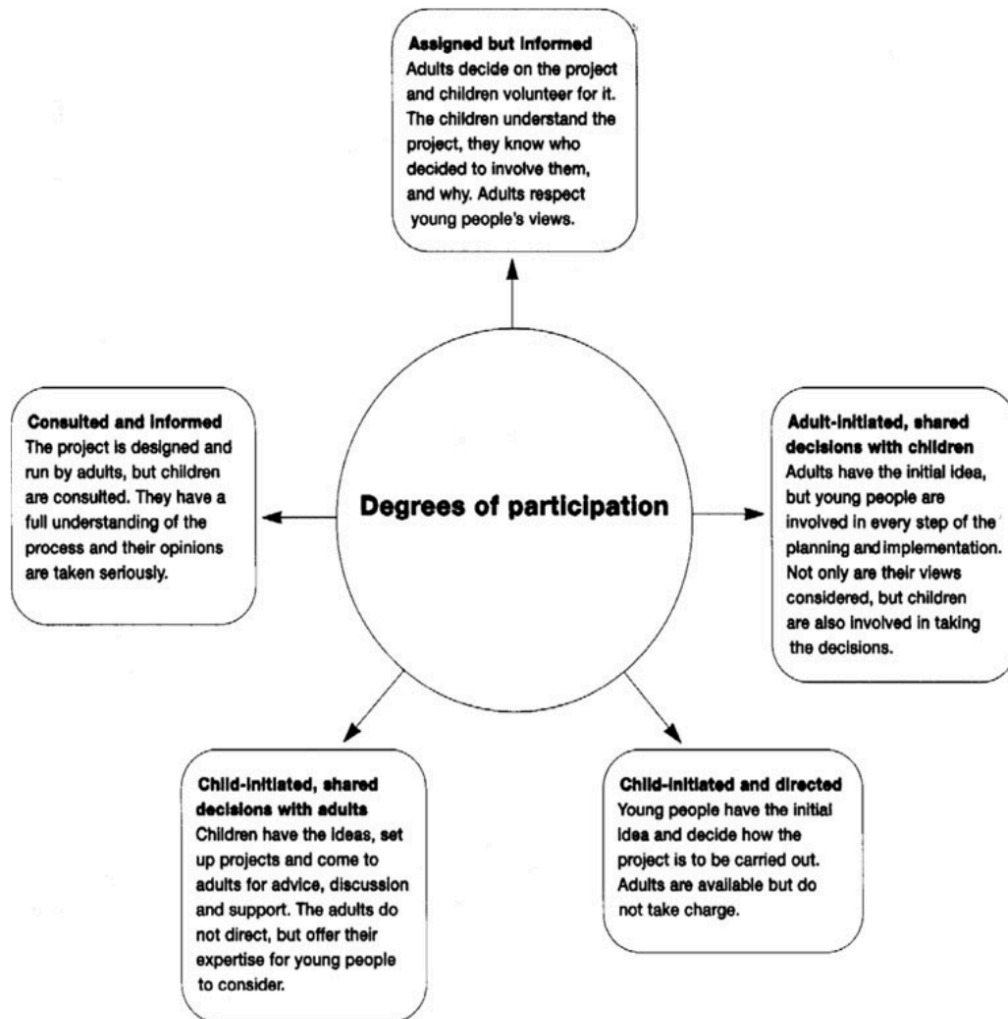


Figure 3: Treseder's Degrees of Participation (Treseder, 1997)

Shier (2001) adds the idea of specifying what openings, opportunities, and obligations exist at different participation levels through posing critical questions for practitioners to answer at each level of participation to ensure they are ready for youth and children’s involvement. This is displayed as a pathway in which one can progressively move from a lower level of participation to higher levels.

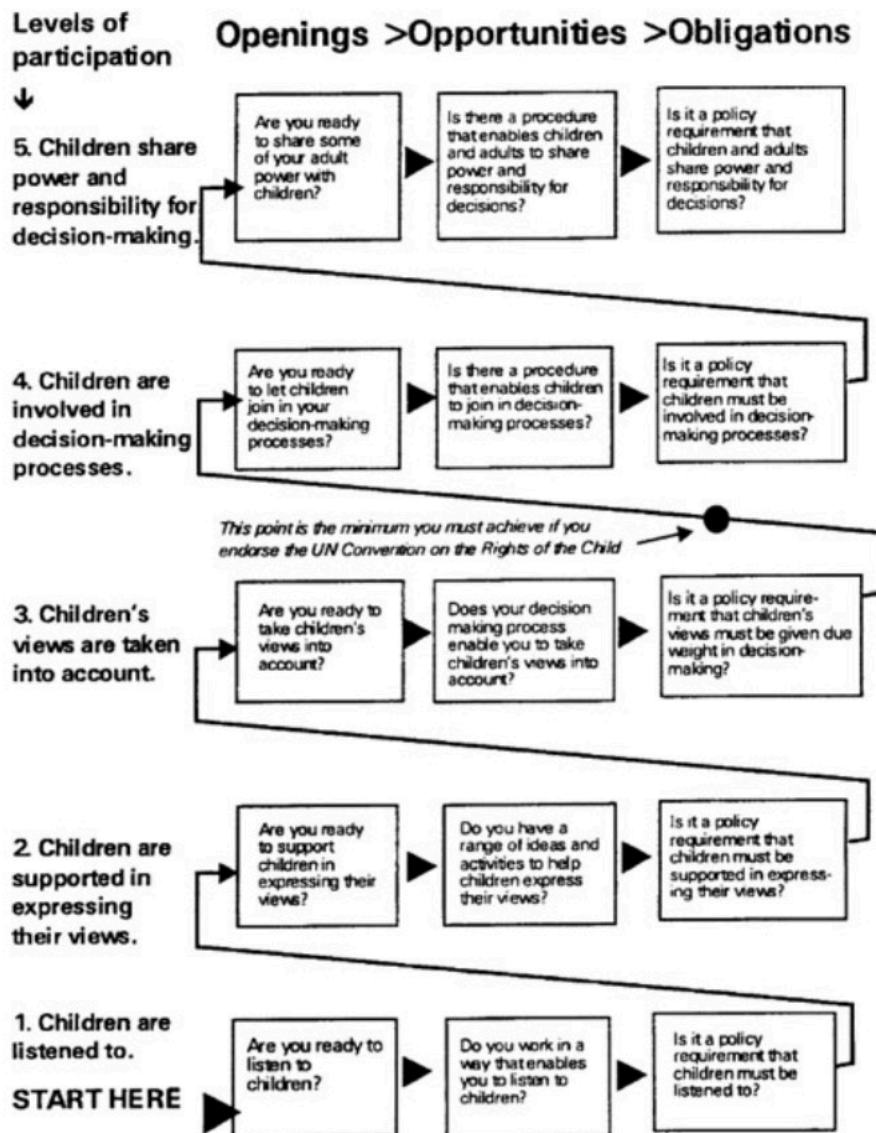


Figure 4: Shier’s Pathways to Participation (Shier, 2001)

Wong, Zimmerman, and Parker (2010) created a typology called the Typology of Youth Participation and Empowerment (TYPE) displayed as a pyramid. They perceive of youth participation on a continuum between tensions among adult control and youth control. There are five different categories of participation in this model.

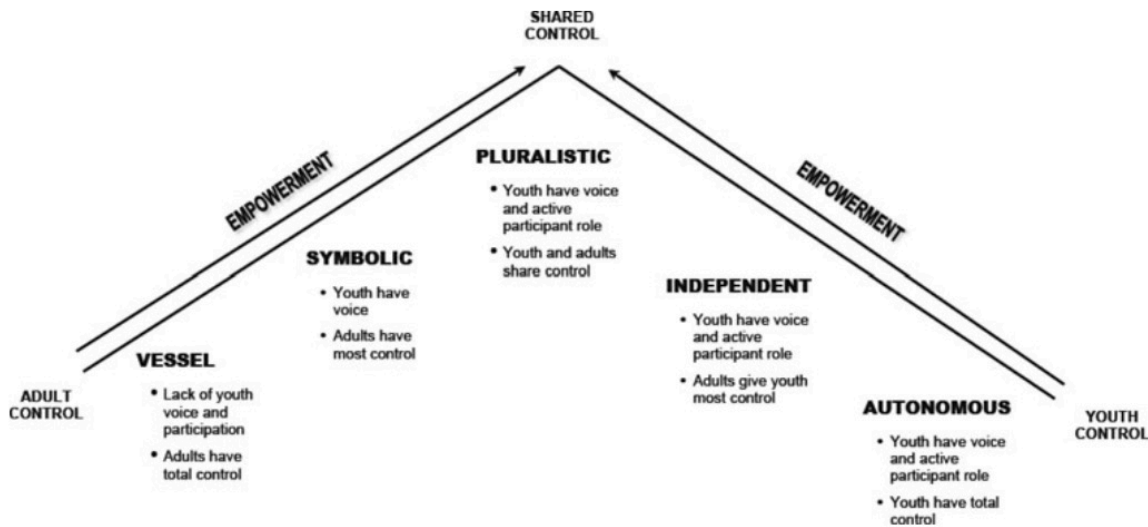


Figure 5: TYPE Model (Wong, Zimmerman, & Parker, 2010)

Another conceptualization of youth participation comes from the youth civic engagement literature (Shaw, Brady, McGrath, Brennan, & Dolan, 2014). This typology differentiates the discourses and disciplinary origins of youth civic engagement and the aims, concerns, and outcomes emphasized by each different discourse.

Table 2: Typologies of Youth Civic Engagement (Shaw et al., 2014)

Discourse	Key Aim	Concern	Desired Outcome
Engaged citizenship	Participation	Recognition; voice; human rights	Engaged in decisions and influence
Positive youth development	Idealized adulthood	Adaptation; behavioural/cognitive/moral adaptability; acquisition of life skills	Becoming more socially adapted individuals for future adulthood; social conformity; less risky behaviors
Belonging	Cultivation of affective social inclusion	Increasing attachments to place and others; building social capital (trust, networks, norms); finding spaces for a sense of inclusion	Stronger connectedness; better interactions; stronger youth-adult interdependencies
Care	Strong social support and resilience	Building strengths in adversity; preventing escalation of problems; increasing protective factors	Supportive/more effective networks; relevant programmes
Justice	Understanding and addressing injustice	Acknowledging root causes of structural inequality	Social justice

While all these typologies differ in their emphasis on participation as a linear or nonlinear process, they provide useful ways to consider how participation differs depending on the depth and the nature of the relationship between adults and youth and/or children regarding decision-making and power. Participation then, is not an either/or proposition but has nuance and degrees of intensity in practice.

Critiques of Youth Participation

While the terms “youth participation” has a positive connotation and is mainstream in many youth programs, grant applications, and program justifications, it is a term laced with history, unspoken meaning, and contradictions. As current critical scholars would encourage us, a more careful attention to the question of *why* and *for what purpose* we use the term youth participation is important for both research and practitioners to make explicit their assumptions

about these programs (Farthing, 2012) which can help lead to stronger research conclusions (Gal, 2017) and habits of practice (Merves, Rodgers, Silver, Sclafane, & Bauman, 2015).

Some have questioned the lack of critical reflection in the positive youth development movement (Sukarieh & Tannock, 2011; Burke, Green & McKenna, 2017). What youth participation is used for, with whom, and under whose decision and leadership are all key areas to consider. Participation has been criticized as being used to groom youth to be actors within existing systems of adult-led power, rather than challenging systems which may be disempowering for them (Watts & Flanagan, 2007). Moreover, the field of youth development, whether positive youth development focused or prevention focused, has also been criticized as focusing too much on the presence or absence of supports at the individual level while ignoring social oppression and its role on youth (Ginwright & Cammarota, 2002) and the social-ecological spaces where youth participation occurs (Gal, 2017).

Farthing (2012) describes four rationales for youth participation: a 1) rights-based justification, 2) empowerment justification, 3) efficiency justification, and 4) developmental justification. Rights-based justifications for youth participation focuses on international agreements, namely the UNHCR, as the reason for why youth participation is needed. Empowerment-oriented justifications view youth participation as a way to right power imbalances between youth and adults in society. The efficiency justification assumes youth participation can help provide more enlightened and effective public policy. Developmental justifications see youth participation as a way to develop skills and resiliency in youth that will benefit them personally.

These rationales can also be challenged. Youth participation, particularly when it comes to be expected or required, can in fact disempower youth if it asks for their engagement only in

issues which maintain the status quo (Watts & Flanagan, 2007). Moreover, when youth participation and engagement only invites some types of youth to the exclusion of others, inequalities in society may even be exacerbated (Tisdall, 2015). Youth may choose to not participate (Farthing, 2010) and this choice may reflect rational preferences. Youth-driven and adult-driven programs may each also have merit depending on contextual situations and programmatic goals (Larson, Walker, & Pearce, 2005).

Types of Youth Participation Used in this Study

As the proceeding sections have shown, participation has emerged as a practice in social programs and development with its own unique history. Youth participation has been typologized in specific ways to be understood through lenses of specific theories. Finally, despite the positive connotation of youth participation and empowerment, it has been critiqued by scholars who have called for more serious reflection among researchers and practitioners. This study will examine the outcome of nesting one strategy for youth engagement within a context of another strategy through altering the degree of participation youth experience in an evaluation. Specifically, this study will examine what occurs when Youth Participatory Evaluation (YPE) methods are used in a Youth Participation Action Research (YPAR) project.

Youth Participatory Action Research

Youth Participatory Action Research emerged from the participatory action research paradigm (PAR). PAR is heavily influenced by the community organizing and educational liberation perspectives developed by Saul Alinsky (1969), Paulo Freire (1971), and Kurt Lewin (1946; 1948). It has conceptual overlays with critical race theory, feminist theory, and community

organizing. PAR takes a critical stance towards top-down research and believes that subjects of research should be involved in the production of research in a way that improves their lives, includes them in decision making, and allows them to verify the knowledge generated through research (Cammarota & Fine, 2008; Flicker et al., 2008; Ozer et al., 2010). In this way, PAR focuses on social change and social action for overcoming injustices among marginalized groups of people.

YPAR applies the principles of PAR to settings in which youth are involved. It emphasizes the involvement of young people in projects actively seeking to change local life in ways that are more beneficial for both youth and other traditionally marginalized groups (Rodriguez & Brown, 2009). YPAR, just like PAR, is focused on achieving and organizing for action. Those involved in YPAR projects treat youth's lived experiences as sources of real knowledge and also treat youth as co-researchers rather than subjects of a study (Cammarota & Fine, 2008). The goal of YPAR is to give power to youth to create their own counter-narratives in ways that may directly challenge or bring nuanced understanding to dominant discourses about community life (Burke & Green, 2005). Adult-youth partnerships are important to the successful accomplishment of YPAR programs, but these relationships must demonstrate power sharing rather than power differentials between youth and adults. In its simplest terms, YPAR can be understood as a form of social organizing which occurs through active youth-driven research into social problems. It is not research for research's sake, but has the explicit goal of creating practical change to people's lives.

YPAR as Better Scholarship

Proponents of YPAR argue that it is both good scholarship and good practice when working with young people (Ozer, 2017; Cook & Krueger-Henney, 2017). As scholarship, it brings in new concepts and ways of examining youth studies. Several scholars have discussed concepts to explain or describe the ways in which YPAR brings about the “critical consciousness” described by Paulo Freire. Schensul & Berg (2004) discuss how YPAR helps youth see things from an eco-critical structural perspective and to realize that power differences exist not just between individual people, but between groups and structures at larger levels. This type of perspective has been used to challenge youth’s thinking about topics such as ethnic conflict (Dutta, 2017) and parental corporal punishment (Wartenweiler & Mansukhani, 2016). Others have discussed the idea of “critical youth engagement” which is the space in which youth leadership, organizing, and YPAR meet (Fox et al., 2010).

Watts & Guessous (2006) discuss the sociopolitical development which can occur when youth are involved in YPAR. This development is an understanding that the reasons why injustices occur are not just functions of individual actions but include broader systems and institutions. They argue that to understand how sociopolitical development occurs, researchers must understand authority and power, the level of agency youth have, the opportunity structures they are exposed to, and their level of commitment to actual actions which challenge the status quo of their environment.

Roholt and colleagues (2009) discuss a concept called civic youth work which focuses on considering youth as citizens doing citizenship work now, and not some day in the future. It emphasizes the lived experiences of youth and encourages youth workers and programs to “work with young people in democratic ways to bring about their experience of themselves as lived-

citizen and to enhance the likelihood that they will continue to be involved as active citizens over their lifetime” (p. 12). Therefore, YPAR as a form of scholarship can bring an understanding of power, a critique of power, and an appreciation of the lived experiences of youth into discussions about research while challenging the individualistic bend of many youth development studies.

YPAR also challenges notions of validity by arguing that those closest to a social reality have the right to be involved in the research (Cook & Krueger-Henney, 2017) for both moral and practical reasons. By involving youth in their own research, the salience of the topics and the quality of the data will be higher than in traditional, adult-driven research, increasing the external validity of the research (Quijada Cerecer, Cahill, & Bradley, 2013; Abo-Zena & Pavalow, 2016). Morsillo & Prilleltensky (2007) discuss the concept of psychopolitical validity, which they describe as “the extent to which research and action take into account power dynamics in psychological and political domains affecting oppression, liberation, and wellness at the personal, group, and community levels” (p. 726). They distinguish epistemic psychopolitical validity (acknowledging power in research) from transformational psychopolitical validity (challenging and changing power through research). YPAR as a method often chooses to tackle both.

YPAR as Better Practice

YPAR has also been argued to be good practice. It provides a counter-discourse (Fals-Borda, 1987) and can be considered a way to democratize research. It also links program goals to wider goals, such as knowledge building and social outcomes. Greenwood, Whyte & Harkavy (1993) state that, “participatory action research is always an emergent process that can often be intensified and that works effectively to link participation, social action, and knowledge

generation” (p. 175). YPAR directly challenges the individualistic tendency of traditional youth development studies by engaging young people in groups, often with adults, to carry out research at a community level. For instance, Watts & Guessous (2006), in their defense of sociopolitical development as a key skill for youth, argue that “the qualities young people need to develop and improve themselves are related to the qualities they need to develop and improve their society; these two domains of development are synergistic” (p. 72). This reaffirms the social-ecological way of viewing youth as embedded within their context and having influence over their context.

YPAR approaches also support and strengthen much of the ideology of youth organizations and programs, including school-based settings where it is sometimes viewed as a type of social pedagogy (Conrad, 2015; Morales, Bettenourt, Green, & Mwangi, 2017; Ozer, Newlan, Douglas, & Hubbard, 2013; Tukudane & Zeelen, 2015). Because YPAR rests on the foundation of youth agency and ability, it creates space for young people to stretch and explore their own limits by raising questions and critiques they may not often have the chance to in other settings which can improve the relevancy of youth programming (Abo-Zena & Pavalow, 2016). As stated by Schensul & Berg (2004), “with PAR’s focus on social justice, youth, with support from researchers/facilitators, become the central change agents and the community becomes the stage for change” (p. 84-85). Penuel & Freeman (1997) also make the case that YPAR is aligned with youth programming:

“The aim of participatory action research is also consistent with the goal of giving youth opportunities to practice responsibility. Indeed, it may be interpreted as calling for youth to be involved in the research process. Given that young people are a critical part of youth organizations- in fact, their very reason for being- why not include them in making decisions about both program implementation *and* research and evaluation?” (p. 178)

YPAR, while a messier, less predictable process than many other forms of youth engagement, has some unique benefits to young people. Its bottom-up nature allows youth to

take leadership roles in the research process. Also, because YPAR projects are nested inside of community settings and mobilizing for change of some sort, it is both research AND a form a civic engagement, so many of the same benefits that might occur from youth being involved in their communities are also true during YPAR. By exploring the critical way in which YPAR examines structures of power while engaging young people in the environments of their daily lives, it is an approach which challenges and expands the notion of young people as individuals by nesting them within their environments. For this reason, YPAR approaches not only have impacts on individuals, but also impacts on the relationships youth have, organizations which serve youth, and communities more broadly.

Individual and Relational-Level Outcomes of YPAR

One of the potential outcomes of YPAR for young people, is the development of critical consciousness. This term is used in various forms; critical consciousness, sociopolitical development, or critical youth engagement, but all refer to the same realization for young people: that institutional power structures politically, socially, and economically frame the lives of young people. Schensul & Berg (2004) discuss how YPAR helps youth see things from an eco-critical structural perspective and to realize that power differences exist not just between individual people, but between groups and structures at larger levels. Others have discussed the idea of “critical youth engagement” which is the space in which youth leadership, organizing, and YPAR meet (Fox et al., 2010).

Watts & Guessous (2006) discuss the sociopolitical development which can occur when youth are involved in YPAR. They describe it as “the evolving, critical understanding of the political, economic, cultural, and other systemic forces that shape society and one’s status within

it” (p. 60). While there are different vocabularies to describe critical consciousness and/or sociopolitical development, all have in common a focus on bringing an understanding of power, a critique of power, and an appreciation of the lived experiences of youth into discussions about research with young people. Other related outcomes include knowledge gain and cognitive development (Sharmova & Cummings, 2017).

Relationally, YPAR connects youth with other youth to engage in projects which are often emotionally salient and important to young people (Ozer, 2017). Youth can develop new social networks with other young people and have safe emotional spaces in which to stretch their own abilities and explore how their own skillsets and abilities fit alongside others (Flores, 2008; Mitra 2005; London, Zimmerman, & Erbsstein, 2003; Rubin & Jones, 2007; Dolan, Christens, & Lin, 2015; Price & Mencke, 2013; Vaughan, 2014; Quijada Cerecer et al., 2013; Dutta, 2017). Adult facilitators are critical here for maintaining a setting which fosters this trust and openness (Cook & Krueger-Henney, 2017). Adult facilitators and other adult stakeholders who may engage in the YPAR project may alter their own perspectives of youth as they see youth acting in ways often reserved for adults (Ozer & Wright, 2012; Livingstone, Celemencki, & Calixte, 2014; Strobel, Osberg, & McLaughlin, 2006; Ozer, 2017). Adults may hold more respect for youth as a result and facilitators may develop satisfaction for performing mentorship roles with youth during their YPAR experience.

Organizational and Community Benefits of YPAR

YPAR can also help decision-makers at the community or organizational level choose programs, policies, or causes which are timely and salient for youth. Involving youth in YPAR can be seen as both a right and a way to improve the effectiveness and efficiency of research,

programs, and policies. Youth can collect data from other youth that may elicit more truthful responses (Quijada Cerecer et al., 2013), improving overall knowledge about a particular issue. Others have argued that YPAR improves the validity of research in a community since it pays attention to issues of power. YPAR approaches also support and strengthen much of the ideology of youth organizations and programs. This is particularly true of youth organizations which support youth-driven projects. YPAR can also link youth program goals to broader goals like social good and knowledge creation, which may be part of the longer-term goals of many youth organizations. Penuel & Freeman (1997) make the case that YPAR is aligned with much of youth programming.

YPAR can also foster the emergence of community through increasing or deepening the regular interactions among community members (Ozer & Wright, 2012; Tuck et al., 2008; Vaughan, 2014). If young people engage in a project which requires gathering data about and discussing community issues with local residents, the research process itself can (and for YPAR, should) take on an organizing tone where residents are engaged in discussing possibilities for change to their local situations. Positive experiences with YPAR have been shown to encourage youth to maintain involvement in community issues beyond their YPAR project. These same democratic dialogues can occur in organizational settings as well, and prompt reflection among organizations about their practices or the focus of their programming (Dolan et al., 2015; Chen, Weiss, & Nicholson, 2010; Zeldin, Petrokubi, & MacNeil, 2008; Powers & Allaman, 2012).

The table below displays the various types of benefits that have been found in literature as a result of YPAR participation.

Table 3: Summary of YPAR Benefits

Context	YPAR Benefit	References
Individuals	Exploration of self-identity and integration of personal identity to larger social reality	Torre, 2009; Torre et al., 2008; Strobel et al., 2006; Tuck et al., 2008; Dutta, 2017; Abo-Zena & Pavalow, 2016
	Sociopolitical development	Morsillo & Prilleltensky, 2007; Watts & Flanagan, 2007; Watts et al., 1999; Watts et al., 2003; Bautista et al., 2013
	Academic and school achievement	Cabrera et al., 2014; Cammarota & Romero, 2006; Romero et al., 2009; Dolan, et al., 2015; Rogers et al., 2017
	Critical thinking	Foster-Fishman et al., 2010; Ozer, 2017; Kirshner et al., 2011
	Social and professional networks	Flores, 2008; Mitra 2005; London et al., 2003; Rubin & Jones, 2007; Dolan et al., 2015
	Self-expression, assertiveness, confidence	Morsillo & Prilleltensky, 2007; Wartenweiler & Mansukhani, 2016
	Youth-Youth Relationships	Psychological safe space with other youth
Changes in youth's peer group		Strobel et al., 2006
Avenues for communication among youth with similar experiences		Quijada Cerecer et al., 2013
Youth-Adult Relationships	Being "taken seriously" by adults	Ozer & Wright, 2012; Livingstone et al., 2014
	Changes in adult perception of youth	Strobel et al., 2006; Ozer & Wright, 2012
	Collegial relationships between youth and adults	Ozer & Wright, 2012
Organizations/Schools	Strengthening of youth organizing efforts	Dolan et al., 2015; Powers & Allaman, 2012
	Increased data driven dialogue within organizations	Ozer & Wright, 2012
	Enhanced youth voice in organizational decision making	Chen et al., 2010; Zeldin et al., 2008; Shamrova & Cummings, 2017
Community	Increased space for novel social interaction among groups	Ozer & Wright, 2012; Tuck et al., 2008; Vaughan, 2014
	Stronger youth voice in community	Dolan et al., 2015; Bautista et al., 2013; Shamrova & Cummings, 2017
	Challenge to existing systems of privilege and power	Cammarota & Fine, 2008
	Increased youth involvement in community	Morsillo & Prilleltensky, 2007

Youth Participatory Evaluation

Youth Participatory Evaluation is a similar, but distinct concept from YPAR. Youth participatory evaluation (YPE) is an approach to program evaluation which heavily involves young people in the design, data collection, interpretation, and reporting of the programs in which they are involved (London et al., 2003; Flores, 2008). Its philosophical approach argues that young people are both able to and should be involved in the assessment of the programs and initiatives designed to influence or change their lives (Flores, 2008), and therefore is ideologically aligned with YPAR. Rather than conducting research on any topic of interest about one's community as YPAR does however, YPE focuses on assessing programs which are already established.

Participatory evaluation itself has been described in two ways, as being either practical in nature or transformative in nature (Cousins & Chouinard, 2012). While these are not mutually exclusive categories, practical participatory evaluation approaches focus on the use of participants to ease the evaluation process through organizational buy-in for the evaluation, improvement in data quality, and use of evaluation recommendations and results (Cousins & Whitmore, 1998). Transformative participatory evaluation, on the other hand, focuses on the democratic process of inviting participants, who often do not have a voice in the way programs are designed and structured, to actively shape the evaluation questions and process (King, Cousins, & Whitmore, 2007). In doing this, transformative evaluation challenges power dynamics within organizations and communities.

Both the practical and transformative aspects of participatory evaluation mirrors many of the same arguments on behalf of YPAR. The practical element of participatory evaluation echoes many of the same arguments scholars use to posit that YPAR provides better, more valid data,

more appropriate and nuanced questions, and improves youth development practice. The transformative element of participatory evaluation, then, echoes the arguments that YPAR is important because it lifts marginalized groups in ways which change youths' relationships to power in their everyday lives and fosters in them confidence and a critical awareness of their surroundings.

Finally, Arnold, Dolenc, & Wells (2008) make an argument supported by Sabo (2003) that the distinction between practical and transformative participatory evaluation weakens when participatory evaluation is conducted with young people because the youth population in general tends to be marginalized from discussions about community life and programming. Therefore, YPE may naturally be both practical and transformative. YPE has demonstrated real impacts and outcomes as it has gained in popularity over time. These benefits have been shown to occur at various levels- benefits to individual youth, benefits to the organization giving the program, benefits to the evaluation process, and benefits to the wider community.

Individual and Relational Benefits of YPE

Benefits of YPE include youth's skill development, team building, interpersonal skills and self-confidence (Flores, 2008). For instance, individual youth learn research based skills as well as communication skills and how to work in a team (Flores, 2008; Checkoway & Richards-Schuster, 2003; Lau, Netherland, & Haywood, 2003; London et al., 2003). They develop a confidence in themselves in the area of research and they also learn new ways of viewing themselves- as researchers, as people worthy of giving their opinion to the programs that affect them (Lau et al., 2003; Sabo 2003; London et al., 2003; Sabo 2003).

YPE is a relational process, since young people work with one another, adult evaluators,

and program staff or other community members (London et al., 2003; Powers & Tiffany, 2006). This relational learning process stretches and challenges youth to produce something together which is often new to them. They learn new skills and new ways of acting and thinking, from designing research questions, interviewing or conducting surveys, learning to analyze and report data, and using judgment to understand the meaning behind what they have learned (London et al., 2003; Powers & Tiffany, 2006; Gomez & Ryan, 2016). As more knowledgeable adults demonstrate why and how to do various activities, youth learn first through observation and listening, and then through actual application of this knowledge once they begin actively participating in the evaluation. This is the example of working within the zone of proximal development where so much of learning and youth development can take place (Vygotsky, 1978).

Organizational and Community Benefits of YPE

Benefits to organizations or programs include an increase in the use of evaluation results, increased evaluation capacity for youth workers, (Lau et al., 2003) improvement in the accuracy of data collected (Gomez & Ryan, 2016), and a fostering of an environment for open dialogue between youth organizations and funders (Gildin, 2003). Organizations which serve youth also benefit as they are able to hear more clearly the voices and opinions of the young people they are trying to serve (Ucar, Planas, Novella, & Moriche, 2017). Discussing methods and results from a YPE project can provide the platform for increased dialogue between organizational or program workers and youth (Gildin, 2003). It can also alter the overall culture of an organization and embed an appreciation of evaluation into the organization itself (Lau et al., 2003) and increase organizational learning (Cooper, 2014).

However, YPE is more than simply a way to engage youth and organizations which serve them. Many would argue that YPE methods help capture more accurate, valid data since it allows for the perspectives and interpretation of youth to drive the evaluation process (Powers & Tiffany, 2006; Checkoway & Richards-Schuster, 2004; Gomez & Ryan, 2016; Ucar et al., 2017). Youth can help evaluators ask the most relevant questions, perhaps those not even on program documents because they are living the experience of being part of the program. Additionally, youth can gather data from one another in ways that adults may not be able to given the inherent power and age disparity often present in youth-adult relationships (Gomez & Ryan, 2016).

Finally, YPE can benefit community more broadly. As youth become involved in an area traditionally reserved for adults, adults may see their hard work and action and develop new respect for youth capabilities (London et al., 2003; Checkoway & Richards-Schuster, 2003; Powers & Tiffany, 2006; Ozer & Wright, 2012). When YPE results are shared in a community setting, youth have the opportunity to showcase their efforts and work to a wider audience. Also, as youth conduct evaluation they may reach out to adults who have the skillset, experience, or knowledge that they may need to be able to carry out aspects of the evaluation. These adult-youth bonds can strengthen community interactions more broadly (Arnold, et al., 2008; Powers & Tiffany, 2006; Krischner et al., 2012).

The benefits to YPE are also very similar to the benefits for those involved in YPAR programs and are summarized in Table 4.

Table 4: Summary of YPE Benefits

Context	YPE Benefits	References
Individuals	Critical thinking	Checkoway & Richards-Schuster, 2003
	Professional skill building	Checkoway & Richards-Schuster, 2003; Lau, et al., 2003; London et al., 2003; Flores, 2008
	Social networks	Powers & Tiffany, 2006
	Confidence/Self-efficacy	Lau et al., 2003; Sabo, 2003; Gomez & Ryan, 2016
	Identity formation	London et al., 2003; Sabo, 2003
Relationships	Stronger youth-adult relationships and partnerships	Checkoway & Richards-Schuster, 2003; Powers & Tiffany, 2006; London et al., 2003
	Change in adults' perceptions of youth	Ozer et al., 2012
Organizations	Deepened understanding of program	Powers & Tiffany, 2006
	Stronger alignment of programs with youth needs	Lau et al., 2003; Ucar et al., 2017
	Increased use of evaluation results	Lau et al., 2003
	Increased youth worker capacity to use evaluation	Lau et al., 2003
	Organizational team building and dialogue	Flores, 2008; Gildin, 2003; Cooper, 2014
Community	Increased youth involvement in community life	Arnold et al., 2008; Powers & Tiffany, 2006
	Increased youth voice in critiquing community life	Krischner et al., 2012

Linking YPAR and YPE Processes

Research done with and on young people can take a variety of forms and range from involving them in some ways to not involving them at all. Checkoway & Richards-Schuster (2003) summarize ways in which young people may take different roles in research (including evaluation research). *Youth as subjects* depicts a common research relationship between youth and adults when top-down, “traditional” research is undertaken, particularly quantitative only approaches through surveys (think of large scale educational research studies). In these cases,

youth are the subjects of a research study and do not inform the research questions, methodology, or analysis.

Youth as consultants and partners are more common in research projects where adult expertise is expected or needed and young people assist in either member-checking data or collecting data on behalf of a larger project. An example might be when young people collect biological samples from a lake to add to a database kept by an environmental organization, or when they member-validate findings from a qualitative study. Examples also are common in health-related research where youth conduct projects on topics already chosen about teenage health issues and assist in data collection in some way (Jacquez, Vaughn, & Wagner, 2013).

Youth as directors occurs when youth are driven to create change and may or may not have adult involvement throughout the research process. Rather, youth in these situations focus on creating community change and are leaders in each step of the research process.

This typology shows a trajectory from a more traditional, top-down view of *youth as subjects* of research and evaluation all the way to the more hands-on category of *youth as directors*. While both YPE and YPAR focuses heavily on *youth as partners* and/or *youth as directors*, YPE can sometimes also include *youth as consultants*.

Table 5: Typologies of Youth Participation (Checkoway & Richards-Schuster, 2003)

	Youth as Subjects	Youth as Consultants	Youth as Partners	Youth as Directors
Goals of youth involvement	Develop knowledge about young people	Create youth-friendlier process	Develop skills of young people and include youth voice	Empower young people and create community change
Defining the questions	Adults define questions	Adults define questions	Adults often define questions with or without youth input	Youth define questions with or without adult input
Creating the instruments	Adults create instruments	Adults ask young people for feedback on their instruments	Adults and youth may jointly create instruments	Young people create instruments with or without adult input
Collecting information	Adults collect information	Adults collect information	Youth may help adults collect information	Youth collect information, adults may assist
Analyzing information	Adults analyze information	Adults analyze information	Adults take lead in analysis, young people may assist	Youth take lead in analysis, adults may assist
Disseminating findings	Adults disseminate findings mostly to professional audiences	Adults disseminate findings mostly to professionals with or without youth input	Adults take lead in dissemination, youth may assist	Youth take lead in dissemination, adults may assist. Findings may mobilize other youth or create community change
Roles of young people	Young people are subjects of study	Young people play limited role as consultants	Young people assist adults in roles such as information collection and dissemination of findings	Young people initiative and take lead in all stages of the process. Adults may or may not assist
Roles of adults	Adults take lead in all stages of the process	Adults play most of the key roles	Adults initiative and implement the process, but enlist youth to assist them	Adults may or may not play supportive roles, but youth make the decisions

Both YPAR and YPE are approaches which involve young people in research about their own lives and experiences, whether in naturally occurring community life or organizational programming. While there are many stated benefits from both YPAR and YPE from case studies, there are more questions than answers regarding the process of how youth involvement in research leads to long-term benefits for young people and their communities. Many authors

discuss the process they believe might occur or could occur, posing future questions for theory building. There has been a call to study and explore how individual level participation in youth-led research and evaluation leads to larger community and social change (Cousins & Chouinard, 2012; Vaughan, 2014; Dolan et al., 2015; Kornbluh, Ozer, Allen, & Kirshner, 2015; Bertrand, 2016). It is also known and critiqued that neither YPAR nor YPE is enough on its own to spur social action, or foster its continuation. This leads questions such as: what processes of youth involvement in research lead to long-term civic engagement of youth? How can researchers capture and study this trajectory?

In a practical sense, youth involvement in research and evaluation aligns and fulfills many of the youth development frameworks that drive youth programs. Eccles & Gootman (2002) have argued that this alignment occurs because youth-led research gives changes for meaningful youth participation, it supports the development of youth confidence and skills, and it integrates youth in processes where they can make a difference in their organizations or communities. Recent articles have called for viewing YPE as an important resource and practice which should be seamlessly integrated into normal youth programming (Zeller-Berkman, Munoz-Proto & Torre, 2016; Alfonso, Boques, Russo, & Brown, 2008).

Penuel & Freeman (1997) have argued that “being a participant-researcher means that the assessment need not be viewed as separate from participation. It is, rather, *a way of participating in the program*” (p. 184). Many have argued that research and evaluation about youth programming and engagement should not be considered separate from the actual programming/intervention of supporting youth engagement (Penuel & Freeman, 1997; Langhout & Thomas, 2010; Arnold et al., 2008; Zeller-Berkman et al., 2016; Alfonso et al., 2008; Powers & Allaman, 2012). Rather, these two are one and the same. Involvement in research and

evaluation is a type of youth civic and community engagement which provides new activities, responsibility, and reflection for youth about their own experiences and a critical view of the structures and programs which aim to serve their needs.

If one views youth-led research as a form of participation in civic engagement, then a study of the outcomes and processes of youth-led research becomes a way to study youth civic engagement itself. One way to study the impacts of youth involvement in research is to explore the impacts of additional research involvement with youth who are engaged in YPAR projects and YPE at the same time. Examination of studies in this manner can fulfill both theory building and practical outcomes. The goal of this dissertation is to answer this question by exploring impacts of YPE on YPAR settings when levels of participation in the evaluation vary among different youth groups. By exploring whether nesting YPE within YPAR projects has added impacts compared to similar projects without an evaluation component, it may be possible to begin to assess whether YPE has additional benefits for young people and particularly the organizations that serve them and communities where they live. If so, exploring why this may be the case can help draw the picture of how youth engagement unfolds overtime and has ripple effects in youth, their relationships, in organizations, and in communities. This ripple effect can contribute to youth development-oriented theories more broadly (resiliency theory, social-ecological theory, and community interaction theory) by considering a new way of thinking about how youth interactions form with those around them- through the engagement and involvement of youth in their own research and evaluation.

CHAPTER 4

METHODOLOGY

Introduction

This dissertation explores the impacts and influence of youth's engagement in an evaluation of a participatory action research project. This study altered the traditional action research project setting (McTaggart, 1991; Noffke, 1994) by incorporating a subset of youth into additional evaluation activities. This design choice reflects a quasi-experimental design (Campbell & Stanley, 1966) and allows for conclusions to be drawn regarding the impacts of youth engagement in evaluation. The nature of the experimental treatment were reflective exercises, group discussions, and peer-interviews. This study used a mixed-methods design to capture both quantitative and qualitative changes and influences of both the program and the experimental treatment on the youth who participated in an action research program called Youth as Researchers. The nature of the study at the design level also incorporates mixed methods since constructivist notions of group-created knowledge were used to influence the experimental treatment activities, yet a post-positivist approach was used to structure the overall research design (Creswell & Plano Clark, 2011).

This chapter will describe the background and procedures of the Youth as Researchers program. The chapter will then describe the research design and the rationale for using mixed methods. The experimental treatment activities will be described in detail, including the specific activities and the sequencing of those activities. This study gathered survey data and focus group data of all Youth as Researchers participants, including those involved in the evaluation (experimental group) and those not involved (control group). The concepts and scales used in the

survey, as well as decisions about the overall survey design will be explained, as will the procedures and questions used during the focus group. Finally, given the participatory nature of this study, a brief discussion will be undertaken regarding the relational decisions the researcher made with regards to interacting with the evaluation participants including the researcher's positionality.

Overview of the Youth as Researchers Program

The Youth as Researchers Program was created by Dr. Danielle Kennan and Dr. Patrick Dolan from the UNESCO Child and Family Research Centre at the National University of Ireland in Galway (NUI Galway, 2016). The purpose of the program is to provide accessible social science research trainings to groups of youth, who range from middle school to college-aged, to equip them with skills to choose, investigate, and recommend change regarding a social issue of their own choice. The Youth as Researchers curriculum has been used in several sites throughout Ireland, often distributed through a national youth organization, Foróige. It encompasses face-to-face training of youth and guided workbooks for youth participants about how to conduct research. The training materials consist of a six-unit curriculum with interactive activities for students and a trainer's manual (NUI Galway, 2016). Projects are carried out in small groups of youth with adult assistance and support. This support, however, does not mean these projects are adult driven; instead, youth choose the topic, questions, research methods, and conduct the actual gathering of the data and analysis of their results. Prior to the following study, three different videos had been created as a tool to disseminate the results of research projects carried out in Ireland. All three videos have focused on highly salient social injustice issues: mental health, LGBTQ teen issues, and homelessness.

Recruitment

For the following study, Penn State University students were invited to participate in this program. This was the first time the program had been carried out with older youth (undergraduate college-aged) and with youth outside of a youth organizational context. An invitational recruitment flier was created by the researcher which highlighted the social-justice orientation of the program and advertised the visibility, teamwork, and professional experience that participation in the program would support (see Appendix A). Any student at Penn State at the undergraduate level was allowed to participate and the flier indicated its particular appropriateness for students interested in social issues, social research, international development, and community development. The UNESCO-affiliated nature of the program was highlighted. The advertisements were sent electronically to all Deans and Department Chairs for undergraduate majors at Penn State. There were also four in-person announcements in classes within the academic major of the researcher, and one student club visit (UNICEF). Interested students were required to send an email of inquiry. Once students emailed for more information, the researcher responded to each individual inquiry with a link to complete an online application form through google forms. Completion of the online application was used as a screening process for students. The questions listed in the online application included:

- Email address, name, major
- In approximately 2-4 paragraphs, please explain why you are interested in the Youth as Researchers Program.
- Please list any current or past employment, volunteer, or extra-curricular activities you would like us to know about.
- What social justice topics are you most interested in?
- Please write down any times this semester you are NOT available to meet on a weekly basis (times you are in class, working, etc.).
- Is there anything else you would like us to know about you?
- Do you have any specific questions we could answer for you about this program?

All students who completed the online application were invited to participate. A total of 66 students signed up to participate in the program by filling out the online application.

Group Formation

Once recruitment was completed (between September 1-29th), the 66 students were placed into 7 groups. divided into groups based on interest. The choice to have approximately 10 in each group had been advised by program leaders in Ireland who found that 10 students allowed for attrition and waves of commitment and motivation while maintaining enough participation to allow the projects to continue. Therefore, because students signed up individually rather than in a preexisting youth group, they were placed into 7 groups ranging from 8-10 in each group.

Given that the researcher had the topics of interest students indicated in their applications, initial tentative groups were formed based on broad topical interest, with the intention that individual participants would be given the option to change to any other group. This reflects a prioritization the researcher had to emphasize external and ecological validity of the study's eventual results and is often an important goal of applied evaluation research compared to basic research (Rossi, Freeman, & Lipsey, 1999; Cronbach, 1982; Cronbach & Associates, 1980). While the experimental procedures were randomized, they were randomized at the group level of analysis, not the individual, reducing the need to have randomization of individuals into groups. Most participatory evaluation, whether done with youth or other audiences, takes place within existing programs, in which variation among program participants represents clustered patterns- that is, program participants are often like one another due to physical location, race/ethnicity, socioeconomic status, etc. Therefore, the choice to place students into groups based on interest

reflects the researchers' prioritization of ecological validity, or the "degree of similarity between the conditions of a simulation experiment and the real-world phenomenon that experiment is designed to model" (Breau & Brook, 2007, p. 78). Attention to ecological validity has been argued as an important aspect of community research and public engagement, especially those that utilize participatory methods (Gehrke, 2014; Christens & Perkins, 2008). In this study, attention to ecological validity meant the researcher chose to place students within groups reflecting their topical interests since in future program settings, topical interest may be a natural outcome of youth participating within an organization with a specific topical focus or who reside within a neighborhood or context in which most youth experience similar issues.

To facilitate the creation of these tentative groups, the researcher reviewed each application and specifically noted the topics of interest listed by the students. The topics were grouped and organized in three stages. The first stage included listing the name of each student with every single topic mentioned in their application. The second stage included the creation of 14 unique topics which emerged from these lists. The third stage included the collapsing of the 14 topics into 7, with a minimum of 8-10 students within each topic. Decisions were made such that if a student had multiple interests, the interests were prioritized based on two factors: 1) primacy of mentioning the topic (i.e. if the topic was listed first or second) and 2) uniqueness of the topical interest. If a student had interests across many different topics but was one of only a few students to mention interest in a more unique topic, their interest in this unique topic was prioritized in order to fill up participants for that group.

Topic Selection

Once these tentative seven groups were created, a large meeting with all students was held with the researcher, a program volunteer, and the researcher’s advisor. The researcher’s advisor explained how this program began and how it fits into wider work being done with UNESCO regarding youth activism in other countries. At the end of basic program introductions and explanations, students were given time to meet with their preselected groups to discuss potential interests. While the groups were chosen based on stated interests, these interests were not shared with the students in order to allow them the free choice to select any range of topics they might be interested in pursuing. Once initial topics were chosen that night, the student-chosen topics were shared with all students verbally during the end of the meeting and through email to give information to any students who wished to switch groups in order to pursue a different topic. Three students chose to switch groups. The initial thematic topic used to group students and their final project topic selection is listed below.

Table 6: Youth Researcher Topical Interests

Group #	Topical Area Categorized by Researcher	Topic Chosen by Group
Group 1	Racial Injustices	Students’ Perceptions of Diversity-Related Classes at Penn State
Group 2	Environment and Sustainable Development	Food Insecurity on Campus
Group 3	Campus Social Issues	Food Insecurity on Campus
Group 4	Discrimination Based on Religion or Culture	Immigrant Students’ Perceptions of Free Speech on Campus
Group 5	Women’s Rights and Sexuality	Self-Described Identities of Penn State Students
Group 6	Educational Inequality and Human Rights	Perceptions of Sustainability Programs and Recycling at Penn State
Group 7	Access to Educational Resources	Penn State Women’s Perceptions of Empowerment

Training

The explicit decision was made by the researcher to not be the lead trainer; this led to the recruitment of an outside trainer. The researcher, while leading a participatory evaluation process, still desired a level of separation from the program delivery, of which the training is the main input. This was due to the desire to elicit candid feedback about the program, ways it was strong, and ways it could be improved. Therefore, the researcher, acting as both program support and an evaluator, chose to prioritize the evaluator role during this element of program delivery. This is an important element for fostering objectivity and an element of relational distance when it comes to core program delivery. This balancing of evaluator role(s) is an area of reflection among evaluators, particularly those who face overlapping roles in their work conducting an evaluation and who must balance issues of technical reliability and validity with the relational elements of trust, participation, and collaboration (Levin-Rozalis & Rosenstein, 2005; Skolits, Morrow, & Burr, 2009).

The trainings were conducted by an outside trainer, an assistant professor with expertise in active learning and social science methodology. This trainer took the existing curriculum and added active learning style activities in order to facilitate a three-hour training for each group. The original curriculum was designed for younger participants who already knew one another. Therefore, active workshop-style training was developed to provide more intellectual challenge to college enrolled students who were likely exposed to much of the information and who did not yet know their group members. The trainer has a background in public administration, international development, and political economy and has led and trained both students in university settings and led community development programs which utilized group trainings.

Trainings for each group were held over a two-week period in early October 2017. One training incorporated three different groups at once, the other trainings were conducted for individual groups. A single make-up training was held for participants who could not attend their group's scheduled training. In addition to the lead trainer, one graduate student moderator was present for each group in order to assist the trainer. The role of this moderator was to help take notes, keep time, and facilitate any activities the trainer needed assistance with. The researcher attended every training but played an observing role, including notetaking, picture taking, and preparing refreshments. The decision to do so was purposeful for the researcher in order to maintain some distance between herself and how participants would remember the training, important for candid feedback necessary for the evaluation.

The trainer planned and conducted trainings using an active learning approach with many activities and group work to be done by students. Each training began with a 5-minute problem solving activity. A summary of each training was written up by the researcher and given to every group the week after their training concluded. An example of a training summary can be seen in Appendix B.

Table 7: Summary of Common Training Activities

Summary of Common Training Activities
<i>5-minute policy problem question.</i> Asked participants: How would you address this issue, what steps would you take to inform a policy maker on how to address this issue? Used visual displays to present their plans. Presented strengths and weaknesses of plans. Voted on best plans using sticky notes.
<i>Group bonding:</i> Participants asked to describe themselves using one word. Asked to describe their strengths and weaknesses. Asked to describe their life story in five words.
<i>Unscramble the research process:</i> The steps of the research process were scrambled and the group had to work together to unscramble and logically put the steps in order and explain why they made those decisions.
<i>Creating measurable goals for social change:</i> Had to created measureable goals using only 10 words. Delineated the difference between vision statements, goal, audience, and dissemination method.
<i>Discussion of research methods:</i> Participants shared what they knew about qualitative and quantitative methodologies before coming to the training and the pros and cons of different types of research. Discussed research ethics in a facilitated fashion.
<i>Types of Research:</i> Used flip charts to distinguish differences between primary and secondary research and what types of methods can be used to collect data for each type.

Completion of Research Projects

Once training was completed, each group solidified their research topic, question, and conducted all research on their own and were responsible for self-organizing weekly meetings with one another. These aspects of youth-led work and creative freedom are important components of YPAR (Rodriguez & Brown, 2009). Once research was completed, each group also completed a final product of their choosing to display and share their findings. Weekly check in meetings on campus were held starting the week after training for each group to come in to speak face-to-face with program support staff (consisting of the researcher and one program volunteer) about challenges or issues they were facing as well as general updates. At the mid-way point of the program, program staff attended a face-to-face meeting with every group to discuss their progress and to help all groups solidify their research question and research design.

At the end of the spring semester and at the conclusion of groups' final products a public exposition was held on the Penn State campus to share students' experiences, procedures, and results with other YaR participants and public attendees. This event served primarily to foster reflection of the process among participants with some calls of action and recommendations given. Both reflection and planning for action are important components of YPAR (Schensul & Berg, 2004; Rodriguez & Brown, 2009). Products shared included videos, a poster, photographs, and an infographic. One group presented their findings in Harrisburg at a university research exposition event at the state capitol the week after this exposition.

The total amount of program contact time after recruitment and training was approximately 10-15 hours of direct face-to-face time with each group for a total of 70-105 hours of program support hours among all groups. Regular weekly contact was also conducted through email by the researcher. While the researcher initially planned to have the program volunteer support the weekly check-in meetings and communication procedures with all seven groups, the volunteer was unable to continue this role for personal reasons. As a result, the researcher conducted this support function.

Overview of Research Design

This study utilized a quasi-experimental, mixed methods design. All Youth as Researchers participants completed a survey both before and after their program experience. Focus groups were also conducted with each of the seven YaR groups after the program experience. The treatment in this study was exposure to additional participatory evaluation activities facilitated by the researcher. The use of a pre/posttest survey design was chosen to note any differences among groups of YaR participants who did and did not participate in the evaluation activities. The use of

pre and post measures (in this case through surveys) is an important element in quasi-experimental research since the purpose of this research design is to begin to assess causality (Cook, Cook, Landrum, & Tankersley, 2008; Boruch, Solomon, Draine, DeMoya, & Wickerman, 1998; Greeno, 2002). Focus groups were conducted with all groups to further understand the experiences of each YaR group and to examine whether any thematic or interpretive differences were apparent between experimental and non-experimental groups, an explanatory practice encouraged for quasi-experimental research (Rubin & Babbie, 1997). A graphical depiction of the research design is below:

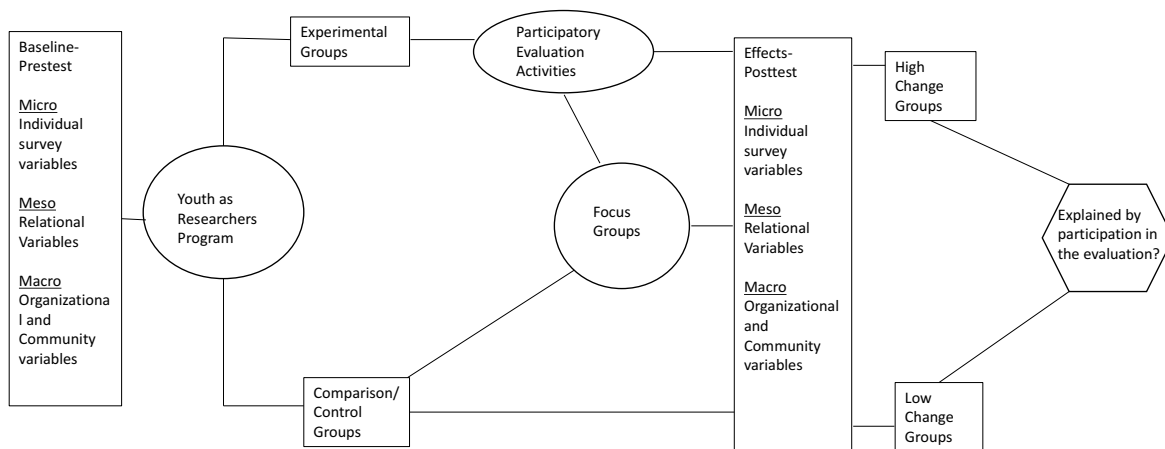


Figure 6: Graphical Depiction of Experimental Design of Study

This study was designed in a way to measure and understand changes among Youth as Researcher groups at three socio-ecological levels: individual changes, relational changes, and organizational/community-level changes (see Table 8 for key variables). Survey and focus group

questions were created to reflect these three areas and the concepts chosen as representatives of each of these areas was gathered from past literature (see Chapter 3).

Table 8: Connection of Outcomes to Concepts and Variables in Study

Social-Ecological Level of Outcome	<i>Concepts and Variables Used</i>
<p>Individual</p> <p><i>Does participation in YPE lead to different individual-level outcomes in participants' experiences of the Youth as Researchers program than those who do not participate in YPE?</i></p>	<p><i>Learning and Skills</i></p> <ul style="list-style-type: none"> • Self-efficacy towards research and civic engagement [Survey] • Learning and personal reflection [Focus Group]
	<p><i>Motivation and Value</i></p> <ul style="list-style-type: none"> • Motivation to join program [Focus Group] • Perception of program value [Focus Group]
	<p><i>Social-Emotional-Cognitive Traits</i></p> <ul style="list-style-type: none"> • Critical consciousness [Survey] • Empathy [Survey]
<p>Relational</p> <p><i>Does participation in YPE lead to different relational-level outcomes in participants' experiences of the Youth as Researchers program than those who do not participate in YPE?</i></p>	<p><i>Emotional relationship towards others</i></p> <ul style="list-style-type: none"> • Perceived social support [Survey] • Appreciation of others [Focus Group]
	<p><i>Functional relationship towards others</i></p> <ul style="list-style-type: none"> • Ability to influence others [Survey] • Group research process [Focus Group]
<p>Community/Organizational</p> <p><i>Does participation in YPE lead to different community or organizational-level outcomes in participants' experiences of the Youth as Researchers program than those who do not participate in YPE?</i></p>	<p><i>Emotional relationship towards community</i></p> <ul style="list-style-type: none"> • Community Attachment [Survey]
	<p><i>Functional relationship towards organizations</i></p> <ul style="list-style-type: none"> • Value of youth participation in organizations [Survey]

Strengths of the Research Design

This research examines the impact that participation can have on youth involved in evaluation work. The context of the study itself is a participatory action research project. Therefore, the nature of the program context used to conduct the research is participatory, and the experimental change to this setting is to add further participation through evaluation activities. The overall research design is a quasi-experimental design with the treatment under study being focus-group style workshops and reflective activities, a common YPE practice (Flores, 2008).

Quasi-experimental work allows for a level of confidence about the impact or efficacy of a program because it allows for the exploration of a counterfactual to be compared to a group which receives a program or treatment (Campbell & Stanley, 1966). In essence, quasi-experiments can allow for researchers and practitioners to understand whether an intervention or treatment appears to work or impact people in a broad sense. An important detriment of quasi-experimental designs is their lack of random assignment at the group level. Therefore, quasi-experiments will randomly assign a treatment among two or more groups, but these groups themselves are naturally occurring and may have important differences (Cook & Campbell, 1979). In true experimental treatments, randomization exists at two level- the group level and the treatment level- to minimize any preexisting differences among groups that may impact the results of the treatment (Boruch, 1997; Campbell & Stanley, 1966). In quasi-experimental designs this is not undertaken, often because of the lack of feasibility (Campbell & Stanley, 1966; Cook & Campbell, 1979). Quasi-experiments are particularly appropriate in real world settings to study policy or programs that affect a wider number of people, or when the real-world

settings of a treatment are very important to maintain (as is the case in this study). Laboratory treatments are the best for achieving statistical confidence of the internal efficacy of a treatment, but can have limited generalizability in settings very unlike a laboratory. This is where quasi-experimental designs have benefit for practitioners and policy-makers, particularly when there is a need to understand whether something has *overall merit or efficacy* (most social program and policy decisions) rather than *precision of impacts* (important for medical decisions, for instance). Combining quasi-experimental designs with process-related qualitative research has also been encouraged by researchers and practitioners as a way to further strengthen the explanatory power of a study's findings, an approach this study uses (Boruch et al., 1998; Rubin & Babbie, 1997)

This particular study context and decisions made by the researcher have some important strengths with regard to the quasi-experimental design. One strength is the high level of control the researcher was able to maintain throughout the study. The researcher had the ability to control and direct the program recruitment and training procedures, allowing for the same procedures and timelines to be used during each of these key program aspects which reduced any program delivery variations. The use of participants with key similarities- same ages, same location, and who attend the same university- had benefits since participants in this study are more similar than they would have been had multiple differing sites been used as the basis of this study. The trainings were done in the same fashion, therefore the level of variability of program delivery for the seven YaR groups is very low; all received the same inputs, supports, and resources delivered by the same people, and this was both observed and documented by the researcher. Since the experimental treatments took place within the same location, the researcher was able to maintain an in-person interaction throughout the experiment and was able to record and observe each of the three interactive meetings. Therefore, the “false environment” often

criticized in experimental research was largely overcome in this study due to this relationship and the embeddedness of the activities within the program context (Trochim & Donnelly, 2008; Campbell & Stanley, 1966; Cook & Campbell, 1979).

Also regarding control, the researcher was able to use the control she had over the study procedures to incorporate two opposing dynamics within the evaluation which are important for participatory practice: 1) objectivity and distance; and 2) trustworthiness and closeness. All participatory evaluators balance dichotomies of being objective and distanced from participants with the need to maintain and establish trustworthiness and closeness with them to encourage active participation (Levin-Rozalis & Rosenstein, 2005; Skolits et al., 2009). A strength of the program context was the researcher's ability to fill both these roles. Therefore, during the experimental meetings students were not interacting with the research as a stranger or for the first time, but had developed a rapport with her which streamlined the efficiency and openness of the experimental meetings.

Other benefits of the study design include the use of a paper survey rather than an online survey to collect the pre- and posttest data. The pretest survey was given at the training and was not anonymous. Therefore, the names of all students are confidential and will not be reported, but the researcher did gather the names of all students during the pretest and posttest surveys in order to follow up personally with any students who did not complete a survey, allowing for a tailored response to reminders (Dillman, Smyth, & Christian, 2014). The paper survey completed in an in-person quiet environment ensured that all students were exposed to and completed the survey under very similar cognitive conditions. The in-person, paper format of survey delivery strongly reduced missing data and the quiet setting in which students completed the survey had benefits over an online version as students may have completed an online survey in a variety of

distracting environments, such as on their phones, in a noisy location, or over a multiple day period.

Research Design Philosophy

Researcher Positionality

The unique nature of this research study, and the closeness and relational interactions required for participatory work, make it useful to discuss the researcher's positionality and perspective about research which drove the research design decisions in this study. I am a woman of color who has had both personal and professional experiences around issues of poverty and social injustices within my own country of origin (the United States) and outside of it. As a result, I position myself in a specific location in relation to social research. I am explicitly interested in using research and research findings to advance social justice goals. I prioritize areas of work where the implications of a study will have effects on practice, particularly those which serve social programs and social needs. I align myself with a specific paradigm of research thought called the transformative-emancipatory perspective. Below is a description of this paradigm, followed by the rationale for using mixed methodology in the following study.

Donna Mertens writes about the transformative-emancipatory paradigm as sitting on one key point- that research should challenge social injustices and give voice to those who are marginalized during the research process. In this way, it is unique and distinct from both constructivist and positivist thought, which emphasize neutrality about the world's conditions and seek to *understand* rather than *change* the world. Mertens organizes her discussion of this paradigm using the traditional terms used to describe philosophy of knowledge- ontology, epistemology, and methodology. She adds a fourth, axiology. Ontology is the study of the nature

of reality and how we know when something is true. Epistemology is the study of the relationships between those being researched and those doing the research. Methodology is the study of the decisions and rationale for how to conduct the steps of research. Axiology is the study of ethics and values which define the foundation of research in the first place.

The ontological beliefs of this paradigm are that there is a singular reality and truth, but that perspectives on this reality are socially constructed and therefore multiple. Different levels of access to power and privilege allow some values and thoughts about the world to become dominant over other perspectives. Researchers should be not just aware of this, but engage in research which lifts these unheard perspectives. Mertens provides guiding questions of how a researcher might begin to consider ontology in their work. For instance, “How is reality defined? By whom? Whose reality is given privilege? What are the social justice implications of accepting reality that has not been subjected to a critical analysis on the basis of power differentials? How can mixed methods shed additional light on the capture and interpretation of reality?” (p. 216, Mertens, 2007).

Epistemologically, transformative researchers believe that trust and a relationship between researchers and the researched is crucial to understanding these different perspectives about social reality. In this way, transformative researchers are not just suggesting that it might be nice to have discussions with those they research in order to improve the quality of data. Instead they argue that without this interaction and acknowledgement of culture and power, research will be misled in content and purpose and potentially reproduce a disempowering cycle which privileges some perspectives over others. In simple terms, in the transformative paradigm researchers are not interested in *feedback*, but a *conversation* with those they are conducting research about and with.

Methodologically, transformative researchers, because of their epistemological positions, are inclined to use mixed methods in their research (Creswell & Plano Clark, 2011). Of key importance is choosing methods to collect data which will build up a trust relationship between the researcher and researched in order to gather valid data. Transformative researchers want participants to have a key role to play in defining the problem or nature of the study itself and tend to use iterations of various methods in order to spur this interaction along. Because this paradigm is interested in the variety and diversity of viewpoints about the world, it privileges methods which are able to gather many different perspectives from as many different types of people as possible. Because people vary so much in their ages, abilities, cultural backgrounds, or preferences, a variety of research methods and approaches is natural and desirable. Therefore, participatory approaches to research such as participatory action research fits well within this paradigm. Also, sampling for as much diversity (rather than as much homogeneity) within a population is also desirable.

Finally, axiological beliefs this paradigm emphasizes making the values of the researcher explicit, and emphasize the values of social justice and respect for human dignity and rights in the research process. Mertens describes the axiological beliefs of this paradigm as:

“Three basic principles underlie regulatory ethics in research: respect, beneficence, and justice. The transformative axiological assumption pushes these principles on several fronts. Respect is critically examined in terms of the cultural norms of interaction within a community and across communities. Beneficence is defined in terms of the promotion of human rights and an increase in social justice. An explicit connection is made between the process and outcomes of research and furtherance of a social justice agenda.” (p. 216, Mertens 2007).

Rationale for Using Mixed Methodology

The following study incorporates data collection and design choices within both qualitative and quantitatively-traditional paradigms. As such, it is worth explaining the rationale

behind why mixed methodology was used for this study. While the overall research design is a quasi-experiment, a traditionally post-positivist design, the epistemological foundation of the study borrows heavily from constructivist thought. This is because this study explores and involves the sharing and construction of joint knowledge among students to participate in the creation and data collection of an evaluation of a program in which they are engaged. Therefore, while the ontological assumptions driving this research are post-positivist, the epistemological ones consider both post-positivism and constructivism. This lead the researcher to make methodological decisions which incorporate both quantitative and qualitative data collection. This mixing of philosophies and decisions is common for scholars aligning with transformative-emancipatory or pragmatic philosophies, of which this researcher identifies.

Two Worldviews about Research

There are unique perspectives about the nature of reality and the nature of knowledge that drive research done at a purely qualitative or purely quantitative nature. These align roughly with positivist thought (quantitative) and constructivist thought (qualitative) (Willis, 2007; King, Keohane, & Verba, 1994; Merriam, 2002). Positivists rely upon the assumption that there is a singular reality that we can measure, even if we do so imperfectly (sometimes called post-positivist thought for this acceptance of imperfect measurement). Constructivists on the other hand, rely upon the assumption that there are multiple realities and we construct different realities about the world through our diverse interactions with one another. Therefore, there is no singular reality upon which to measure, but diverse ones with which we ought to try to understand as deeply as possible.

These worldviews then direct the way in which researchers relate to research participants (Willis, 2007). Post-positivists would be concerned about biasing results through interacting too closely with participants. Constructivists would be concerned about influencing results by NOT interacting closely enough with participants. This could result in the discomfort of the social setting leading to shallow findings which don't reflect the reality of participants' experiences. These two worldviews also influence the purpose of the research findings. For post-positivists, the purpose of research is to generalize findings to settings where the research did not occur. This fits with the assumption that there is a singular reality. Therefore, if research is done with rigor and precision in ways that can be generalized to other settings, then we have discovered something new about the world (King et al., 1994). For constructivists however, the goal of research is to deeply understand one perspective (among many) of reality and to do so in as rich and nuanced a manner as possible (Merriam, 2002). Therefore, external generalizability is not the goal of this type of research. Instead, contextual validity, where the finding so the study is true to a specific context and setting, is the goal. Simply put, for post-positivists there is one big world to discover, and for constructivists, there are many worlds to discover.

A Third Way

The following study incorporates both quantitative and qualitative procedures, and includes both frames of thought in this rationale. The driving ontology for this study is a mix of transformative emancipatory and pragmatic thought. Both of these ideas have been pushed as potential new paradigms for research, and have been argued to be strong foundations for the use of mixed methodology (Creswell & Plano Clark, 2011; Mertens, 2009; Morgan, 2007). The transformative emancipatory paradigm focuses on the process of research (including raising a question, collecting data, and interpretation) as a potential liberating or disempowering process

(Mertens, 2009). Researchers in this paradigm are dedicated to advancing the voices of marginalized groups and choose methods which infuse diversity of thought into the research process. They choose methods which will enable trust between research and participants, and keep a close eye to ways in which results may or may not affect change in participants' situation. Pragmatists on the other hand, are interested in the *how* of research design and methodology, rather than the existential *why* (Morgan, 2007). They eschew the assumption that researchers primarily approach research through their ontological and epistemological assumptions about the world, but rather make practical choices between both theory and data, and between epistemology and methodology, and these are worth acknowledging, studying, and using as a foundation to promote mixed methods research. In the simplest terms, transformativists want to do whatever will improve a situation, and pragmatists want to do what works in a given setting. These two are enmeshed ideas since what will improve the social standing of a certain group is often also what might work given the cultural, social, and resource-based limitations of a group of people being studied.

Iterations between both qualitative and quantitative methods, as well as constructivist and positivist ontologies can be appropriate and even desirable for mixed methodologists. Not even just that, but pragmatism opens up a door to focus research agendas which explore the relationship between methodology and epistemology and vice versa as mentioned by Morgan (2007).

“The great strength of this pragmatic approach to social science research methodology is its emphasis on the connection between epistemological concerns about the nature of knowledge that we produce and technical concerns about the methods we use to generate that knowledge. This moves beyond technical questions about mixing or combining methods and puts us in a position to argue for a properly integrated methodology for the social sciences.” (p. 62)

Qualitative approaches take data and connect/build theory (induction) while quantitative uses theory to drive data collection (deduction). On the other hand, pragmatism argues for abduction, or a going back and forth between these two extremes. Theory might inform the initial research question, but data challenges it and pushes it in a new direction, and this new direction shifts the research data collection process. A going back and forth between these two is natural and desirable in this framework. Regarding the relationship to the research process, qualitative researchers believe they have subjective understanding of a situation, and often make an effort to delineate these positions upfront through stating their own positionality towards a subject or situation. On the other hand, quantitative approaches prioritize the researcher as an objective observer or data collector. Pragmatists instead focus on intersubjectivity, or a focus on the relational process of mutual understanding between participants and researchers. This term emphasizes the process of communication which is reflective. Finally, qualitative research focuses on the ability to infer about a specific context from in depth information, while quantitative approaches focus on a way to generalize about the world from a set of data. Pragmatists instead are concerned with transferability, or the ability to take certain elements of a study’s findings and use them, (or transfer them) to a different setting. Description of how this dissertation works falls within this “third way” of rationalizing the use of mixed methodology is described below.

Table 9: Differences between Paradigms (Morgan, 2007)

	Qualitative Approach	Quantitative Approach	Pragmatic Approach
Connection of theory and data	Induction	Deduction	Abduction
Relationship to research process	Subjectivity	Objectivity	Intersubjectivity
Inference from data	Context	Generality	Transferability

Prioritization of Research Question

Which has priority for driving methodological decisions in a research study, the research question itself or the metaphysical assumptions behind the research? This is a key source of debate, and rightfully so because it's implications are for dramatically different assessments of what quality research looks like. Pragmatists prioritize the research question and transformativists prioritize the *intention* behind the research question and whose voice it may or may not reflect. Mixing methods allows for research questions which are complex and may need a variety of data and a variety of epistemological approaches to accurately understand. One of the key benefits that pragmatism can bring to research studies is the ability to acknowledge and link the decisions made on the ground (methodology) to the relationships between the researcher and the researched (epistemology). Given that the following study examines the effects of participation, an inherently relational concept to study, the ability of pragmatism to on the connection between methodology and epistemology is well-suited. As Morgan (2007) states:

“The more important point is that a pragmatic approach reminds us that our values and our politics are always a part of who we are and how we act. In the end, these aspects of our worldview are at least as important as our beliefs about metaphysical issues, and a pragmatic approach would redirect our attention to investigating the factors that we choose to study and how we choose to do so.” (p. 57)

Abduction

The following research study has emerged from the conversation happening back and forth through the literature base about participatory evaluation. Most studies have been inductive (creating theory from a specific case) while few were deductive (using specific cases to test a theory). The overarching goal of this research study is to understand whether adding a participatory evaluation experience on top of an already participatory action research project will

have any additional benefits for young people. There is a body of literature which already says that there are benefits to both participatory evaluation and participatory action research. This study adds two unique elements to the existing literature base about this topic: 1) it explores settings which have both youth participatory action research AND participatory evaluation; 2) it seeks to capture results from this experience quantitatively (as well as qualitatively).

A key limitation of the literature about participatory evaluation in particular is the lack of systematic and comparative studies that might lend more specific understanding about how and why these positive (or negative) outcomes may occur from participation. The literature base is primarily single case study examples written by evaluation practitioners about the participatory work they have done. This is an excellent way to begin drawing the foundation to begin understanding what might be occurring during participatory evaluation and is the first step towards building a more comprehensive theory of participatory evaluation (through delineating its rationale, context, process, and outcomes). Recent meta-analysis has shown the abundance of narrative case studies and called for more expansion of participatory evaluation theory by encouraging studies which *test* the tentative processes which narrative case studies have shown (Cousins & Chouinard, 2012). These tests can be accomplished through longitudinal studies, post-hoc reflective studies, comparative studies, and quasi-experimental designs (the design chosen for this study).

Intersubjectivity- the Heart of the Study

Intersubjectivity is at the heart of this study. Direct interaction was undertaken with young people to evaluate their program experiences. Using positivist terms, this is the independent (or treatment) variable and the study sought to see whether this intersubjective experience through participation in the evaluation process creates any transformative outcomes,

i.e. the dependent variables. Therefore, theory and prior knowledge were used to anticipate what some outcomes might be (measured with a quantitative survey), but with the acknowledgement that these studies and past research are limiting and may not in fact be the true story about youth's participation outcomes. This may be particularly true since currently studies have been done with primarily adult voices being the ones involved in reflection and writing about the participatory evaluation process. Instead, to combat this, focus groups and reflective writings were conducted with youth in order to better understand their own feelings and interpretations of their experience.

Transferability- the End Goal of the Study

The long-term goal of this study is not to precisely measure quantitative impacts (there are many limitations due to sample size and time), not to gather in depth knowledge about the details of what it is like to be part of a participatory action research project (this has been well documented in the literature), nor to gather information about participatory evaluation from the evaluator perspective (there are many manuscripts which address this already). Rather, the long-term goal of this study *to create the groundwork for a more substantial claim for the use of participatory methods in evaluation research with youth*. Given the diversity of settings in which youth programming occurs, precise generalizability of the research findings is not likely nor desirable. Using stories and experiences of young people as well as quantitative data from surveys, findings will present a picture of youth's experiences in participatory evaluation in a more holistic manner.

Study Procedures

Now that the program history, research design merits and limitations, and rationale for mixed methodological approach has been explained, the rest of the chapter will focus on the practical procedures used in the experiment and to collect data.

Experimental Procedures

The experimental treatment in this study consisted of three face-to-face interactions and two online interactions. After the seven groups were selected for participation in the overall program, four groups were randomly selected to be invited to participate in the additional experimental activities. All members of these four randomly selected groups were invited. Personal invitation letters were sent to students through email. Each student received a private email from the researcher and her advisor with a PDF letter personally inviting that student to participate in the evaluation. Personalized mention of aspects of the student's skillset or background were incorporated to make each letter reflect the researcher's understanding and knowledge of each student and to further incentivize them to participate (Dillman et al., 2014). All members of the four randomly selected groups were invited for a total of 40 invited students.

The in-person experimental activities were conducted in one-hour focus-group discussion style meetings set in a small conference room on the Penn State campus. Online doodle polls were organized to find the most commonly available meeting times among all invited students. Three different times were chosen as the most popular and approximately 8-10 individuals attended each of the three meetings comprising the first stage of the experiment. This same scheduling procedure was used throughout all three experimental meetings, leading to a total of nine face-to-face meetings of approximately 8-10 participants in each meeting. Those who participated in these focus group style meetings interacted both with members they already knew

from their own group, as well as members from other groups. Observational notes, audio recordings, and reflective writings by the researcher were all taken at each of these nine meetings.

The first experimental activity was a brainstorm session in which students were invited to give lists of pros/cons about the three elements of the program they had experienced up to that point: the recruitment materials, the training, and the process of choosing the initial research topic. At the end of this initial brainstorming activity, students were placed into three break-out groups, one group for each topic, and told to create three potential evaluation questions that could address these pros/cons. The choice of three groups and three questions was made for pragmatic reasons including the size of the room and the allotted time for the activity (10 minutes). At the end of the one-hour meeting, all break-out groups came together to debrief and add or change anything to the existing questions. All evaluation questions then, were participant created and chosen and all questions were recorded by the researcher. The moderator's guide for this meeting can be seen in Appendix C.

The second experimental activity involved more student-directed discussion. The goal of this meeting was to narrow down the broad list of questions from the first experimental meeting and to add new topics and questions driven entirely by the participants. The researcher played a more passive role than in the first meeting in order to encourage more youth-led discussion. She asked students to brainstorm topics they were curious about within their own groups, or things they would like to know about in other groups. Once these topics were written down she asked students to think of evaluation questions which could be asked to explore these topics. Notes and pictures were taken to capture this process. At the end of the discussion the participants in each

group were given a list of previous questions they and other groups had come up with from the first meeting, and told to narrow the comprehensive list of 15 questions down to six or seven.

After this second stage, the researcher compiled all new research questions and looked for overarching topical areas of similarity. She also compiled the most popular questions which had been narrowed down from the stage one activity. She chose to include 32 questions for students to vote on electronically which represented the most common or similar questions across all six meetings of the first two stages of the experiment. Emails were sent inviting students to vote on these topics using Google Forms by choosing their favorite or top two favorite research questions under the seven topical areas. These topical areas included 1) *recruitment*, 2) *training*, 3) *group dynamics*, 4) *research process*, 5) *final product*, 6) *program value*, and 7) *personal changes*. Therefore, students voted not just on the questions chosen by the particular meetings they attended, but on a collection of all questions created. Those questions with the highest votes were chosen. In cases of a tie, both questions were kept. These questions were then compiled by the researcher into an interview guide with large blank spaces for writing and can be seen in Appendix D.

Two reflective questions were included in the voting process at the end of the survey. The first was, "*Please describe what it has been like for you to work with your peers to develop these evaluation questions.*" The second question was, "*Have you learned anything new about yourself as a result of working to create these evaluation questions? Have you learned anything new about evaluation?*" Thirty-five students completed the survey and answered the reflective questions.

A second reflective activity was then scheduled. This was a short essay in which students filled through google forms. It consisted of three questions:

- 1) *Think about your own personal experiences so far in the Youth as Researchers program. What has been the best part of this program for you personally? What has been the most difficult part of this program for you personally?;*
- 2) *Think about working in your Youth Researchers group. What strengths do you have that you contribute to your group? What strengths do you notice in your group members?; and*
- 3) *Again, think about working in your Youth Researchers group. Have you learned anything from your group members? Have you taught your group members anything they didn't already know?*

Thirty-three students completed this reflective assignment. The purpose of these written activities was to encourage additional cognitive reflection about both the personal learning and the relational learning students were engaging with as a result of the evaluation, two important aspects reflected in literature about youth participatory evaluation (London et al., 2003; Flores, 2008; Checkoway & Richards-Schuster, 2003).

The third and final experimental face-to-face activity was a peer-interview in which student participants were paired with a member who was not part of their program group. Participants used the interview guide with questions they had developed and chosen to interview a peer. These interviews were anonymous (no name or identifying information was collected) in order to encourage candid conversations. Hand written notes on the interview guide were the primary method of data collection. The researcher was in the room (a larger room was used than the ones during the previous two stages) during this time in order to broadly observe, but she made extra effort to be far enough away from students to not explicitly overhear their conversations. Students interviewed one another for 30 minutes each. Afterwards all students sat together with the researcher at a table to debrief and share anything about their conversation they wished to share.

In summary, there were two main end products as a result of the evaluation: 1) a collection of peer-led interview data derived from participant-created questions; and 2) a series

of written personal reflections. Purposeful choice was made to have multiple social-interactive modes of collecting the evaluation information (group level discussions, small group break outs, individual reflection questions, and coupled peer interviews) in order to accommodate differences in personality and comfort in working in groups or alone.

Survey Instrument

Chapter 3 provided a review of literature regarding the impacts of YPE and YPAR and demonstrated the measure of similarity among these outcomes. These outcomes differ depending on the social-ecological level and the focus of the unit of analysis. This study, given the broad interest in understanding indications of impact, chose to measure a variety of literature-supported outcomes at different social-ecological levels. Therefore, the survey instrument explores individual, relational, and organizational/community level variables.

Individual-Level Variables

There are four individual-level variables measured in the survey instrument. 1) *Research-related self-efficacy*, 2) *civic engagement self-efficacy*, 3) *critical consciousness*, and 4) *empathy*. Self-efficacy is the confidence and assurance someone has that he/she can successfully complete a task or handle a situation and plays an instrumental role in explaining how individuals both think and act upon their own perceived abilities (Bandura, 1986). Self-efficacy differs and manifests itself differently in relation to specific activities or situations, therefore there is no “global self-efficacy” but rather self-efficacy towards specific areas in one’s life. This survey measured self-efficacy in two different areas, research skills and civic involvement. Past research in YPE and YPAR has shown that youth’s participatory involvement in research and evaluation increases their self-efficacy towards conducting research (Lau et al., 2003; Sabo, 2003; Morsillo

& Prilleltensky, 2007). Involvement in research and evaluation activities among other people with the purpose of making social and organizational change has also been shown to increase youth's self-efficacy towards future civic involvement (Arnold et al., 2008; Powers & Tiffany, 2006; Krischner et al., 2012).

Flanagan, Syvertsen, & Stout's (2007) instrument on *civic engagement self-efficacy* was used to capture self-efficacy in the civic domain. It has shown strong internal reliability to be used as a summative scale. This scale is a set of nine items asking respondents to indicate how well they think they could complete a variety of civic-related activities and measured on a 5-point Likert response scale (Definitely Can't, Probably Can't, Maybe, Probably Can, Definitely Can). A researcher-created set of eight questions were created to measure research-related self-efficacy. These questions were statements of various activities along the research process with a five-point Likert scale of agreement indicating the respondents' level of confidence to complete each activity (Not Confident at all, Not Very Confident, Neutral, Somewhat Confident, Very Confident).

Critical consciousness, sometimes called sociopolitical development, is the awareness of social and political realities beyond individual-level choices (Watts & Flanagan, 2007; Watts, Griffith & Abdul-Adil, 1999; Watts, Williams, & Jagers, 2003). It is the ability to understand that social institutions influence social behavior and social circumstances in ways which can perpetuate systemic injustices for some groups of people. The nature of participatory action research often exposes youth to the institutional nature of social realities and challenges their thinking about these topics (Morsillo & Prilleltensky, 2007; Watts & Flanagan, 2007; Watts, et al., 1999; Watts et al., 2003). Moreover, participation in evaluation, in particular the reflective nature of evaluation, can further strengthen this learning. Thomas et al.'s (2014) instrument for

critical consciousness was used. This scale uses a Guttman style scoring metric (Guttman, 1950) to capture nine different aspects of critical consciousness. Each aspect is measured with four statements with the first indicating a low level of critical consciousness and the last indicating the highest level of critical consciousness. Respondents choose all aspects they agree with and the highest-level item chosen serves as the score for that aspect. A summative total is also used to measure overall critical consciousness.

Empathy is the ability to both emotionally connect with and cognitively understand another person (Davis, 1983). It requires perspective taking, listening, and an ability to reflect upon and put aside one's own opinions or perspectives in order to connect with another. Given that action research and evaluation requires the ability to take the perspective of others and in order to design research instruments or consider how results will be understood by others, as well as the group-work nature of the program, empathy is an anticipated outcome of participation in group-level research about social issues. Davis' (1983) empathy instrument was used, with two out of the original four sub-constructs used for this survey: *perspective taking* and *empathetic understanding*. The scale is measured on a five-point Likert agreement scale and is used as a summative index.

Relational-Level Variables

At the relational level this survey measures two concepts. The first is *social support*. Social support is the tangible and perceived relational capital that can be tapped into during times of stress and need (Cutrona & Russell, 1987). These supports can be tangible in either physical or emotional ways and can be informal or formal in nature. Perceived social support is important as well, since the perception that there are resources available can increase confidence and

reduce stress among youth even in situations with limited tangible support structures. Having social supports among both other youth and adults is an outcome of group-related action research work as well as participatory evaluation (Checkoway & Richards-Schuster, 2003; Powers & Tiffany, 2006; London et al., 2003). This survey used Cutrona and Russells' (1987) instrument to measure perceived social support among two different groups: other youth and adults. Therefore, identical questions were asked about respondents perceived social support among their age-mates as well as adults that are older than their age. This instrument is a summative index of four items measured using a five-point Likert agreement scale.

The researcher created a series of questions to measure the concept of the *ability to influence others*. An important aspect of YPAR is using research findings to influence or create social change about the topic under study. Additionally, evaluation findings are intended to be used and incorporated into how programs are conducted and structured. Therefore, the ability to influence other people is an aspect that could be expected to change as a result of exposure to action research and participatory evaluation. The researcher crafted seven questions measured on a five-point Likert agreement scale.

Organizational/Community-Level Variables

Two organizational and community level variables were also incorporated into the survey. The first was *community attachment*. Emotional and physical attachment to one's community is an important determinant of future civic participation (Theodori, 2018) and is an important element of youth's sense of self-identity and where they are suited to make social contributions. Past research has shown a connection between youth's involvement in action research and participatory evaluation and their feelings of attachment to the place where they live

and the relationships among the people living in that place (Dolan et al., 2015; Morsillo & Prilleltensky, 2007). Theodori's (2004) community attachment scale was used. It is made up of 11 items measured on a four-point Likert scale without a neutral. For this study, a neutral option was added to maintain consistency with the rest of the scales used in the survey in order to reduce respondent-error.

The *value of youth participation* within both community and youth organizations was also measured. The nature of both YPAR and YPE has at its center youth participation. Given that attitudinal dispositions towards an issue effect behavior in that area, attitudes towards the importance, necessity, or efficacy of youth participation can drive how youth choose to participate in opportunities around them. The value of youth participation scale was taken from the International Civic and Citizenship Education Study (ICCS) survey. This is an international survey of civic education of youth around the world, with most questions centered around the school setting. Value of youth participation within the ICCS examines youth's feelings of participation as important within the classroom and wider school environment. The scale was altered to reflect two specific types of organizations (rather than schools)- those serving only youth and those serving the wider community in order to capture youth's feelings towards participation in a community and organizational setting. This instrument is a five-item scale consisting of five-point Likert style agreement responses questions. It has shown strong reliability in international samples (Schulz, Ainley, & Fraillon, 2011).

Design of the Survey

The survey was designed and delivered in a paper format. It was non-anonymous, but confidential. This was done purposefully in order to match students to their pre/posttest surveys, to the group they were a member of, and to allow for tracking a student if they switched groups. The confidential nature of the use of names was explained in detail at the beginning of the survey administration by the researcher as was the rationale for only needing names for matching purposes. Dillman's Total Design Method approach to survey design was used throughout the survey (Dillman et al., 2014). The flow of the survey followed the social exchange concept argued for by Dillman by asking easier cognitive and intriguing questions upfront and using natural transitions to introduce the change to a new topic (Dillman et al., 2014). In some cases, an open-ended question was asked explicitly to put the respondent in the mindset to then answer more complex attitudinal questions with their written answer in mind. For instance, rather than asking directly respondents' attitudes about youth participation in youth and community organizations, an explanation of what a civic organization is was explicitly provided along with an open-ended question asking students to write down any civic organizations they were involved with. The goal of this strategy was to ensure that each participant had the same working definition of civic organizations when answering the questions and that they had paused long enough to ensure they had read this definition and thought about it (by answering the open-ended question) before proceeding to the value of youth participation questions which asked about their attitudes. This helped to ensure the validity and comparability of the survey results among different respondents. In two cases, open-ended questions were asked after the scales about self-efficacy in order to capture which of the tasks the respondent felt they were most confident to

complete at the time they participated in the survey. Respondents were also asked their career interests in both the pretest survey and posttest survey.

Other open-ended questions in the pretest included:

- Why did you decide to get involved in the Youth as Researchers program?
- What do you hope you will get out of your Youth as Researchers experience?
- How would you describe your racial/ethnic background?

Other open-ended questions in the posttest included:

- What was your favorite part of your experience in Youth as Researchers?
- If you could change anything about your experience in Youth as Researchers what would you change?
- Is there anything else you would like to share about your Youth as Researchers experience?

To see a list of the full pretest survey, see Appendix E.

Focus Groups

Focus group discussions were the second key form of data collection for this study since the main units of analysis in this study were groups rather than individuals. Each individual within the seven Youth as Researcher groups is nested within a unique group setting. Focus groups allowed for the researcher to ask about group-level dynamics in a setting where she could also observe group dynamics in action (Stewart, Shamdasani, & Rook, 2007). Furthermore, the researcher wanted to gather information from all Youth as Researchers group members in ways that allowed for members within a group to express agreement, disagreement, or reflect on their experiences as a result of the focus group conversation (Hesse-Bieber & Leavy, 2006). Given that each group participated in the program in unique ways, the members of each group had specific shared experience the researcher determined was worth capturing within their intact groupings. For each of the seven groups who participated in the YaR program, a one hour focus

group discussion was held in December 2017, at the conclusion of their research design and data collection.

The moderator's guide was developed to focus explicitly on group related challenges and reflections since this was an area that was not captured in the survey (which asked individual-level questions) and since the focus group setting allowed for the unique ability for group members to cross-check, compare, and contest their personal experiences alongside those of their group mates (Stewart et al., 2007). The moderator's guide can be seen in Appendix F. The focus groups were conducted with only the researcher and youth participants present. There were no other adults or researchers in the room. This was an explicit choice made in order to foster candid feedback from the students. The researcher had developed relational rapport with each group over the course of the semester and wanted to be able to use this rapport to increase the efficiency and honesty of the conversation. She did not want other program related staff (i.e. the program volunteer, or the trainer) to be present as this may have changed the candid nature of the responses. A tape recorder was used in all sessions and the researcher took notes throughout the discussion and provided a verbal summary of the conversation at the end to member check at the end. This was done in lieu of a second person in the room to take notes, a decision made primarily due to funding restrictions. During the post-test survey delivered at the end of the focus group, the researcher wrote down non-verbal observations about the group by hand. The handwritten notes and observations were used to create simple summaries of each focus group. Full transcriptions were later conducted by the researcher.

Relational Considerations

The mixed methodology portion of the study occurred at both the design and the data collection levels (Creswell & Plano Clark, 2011). While the overall research design is a quasi-

experimental design informed by post-positivist thought, the process-focused nature of the study and the reliance on constructivist reflective thought and participant-driven activity aligns this study with constructivism. There was a specific, methodological rationale to the development of a trusting relationship of students with the researcher that is worth explaining.

The researcher, aligning with transformativist thought (Mertens, 2009), sought to develop a trusting relationship with all evaluation participants in specific ways. She also sought to balance issues of closeness and distance from the delivery of the programming. The purpose of trying to achieve some distance with the programming was to have students associate herself with the program, but not so strongly as to not provide meaningful and honest feedback or critique of the program. She accomplished this through the following decisions:

- Recruiting an outside trainer to deliver all social research methods training sessions
- Having her advisor introduce and discuss the program on the first overall YaR meeting
- Having a program volunteer be available for weekly check in meetings (as well as the researcher)
- Having the same program volunteer attend individualized meetings with all seven groups at the program's midpoint to ensure research design plans were underway and feasible (the researcher was also in attendance)

There were specific decisions taken to try to create and foster a trustworthy environment for the participants. Food and refreshments were made available at all trainings, focus groups, and participatory evaluation meetings. At every meeting, the researcher (and trainer during the trainings) specifically arrived 30 minutes early in order to casually discuss or meet participants if they had questions or just wanted to talk. She found that students attending focus groups or participatory evaluation meeting sessions would be quiet upon entering the room, and during these settings she specifically engaged the students in casual conversation prior to the beginning of the interactive activity, whether it was a training, focus group, or experimental activity. She always stayed after as well to answer any additional questions or field any requests. Sometimes

participants would come up and ask questions regarding the program, the future of the program, clarify something they had said, or ask general questions about her or about graduate school. The researcher considers these important interactions that she made special care to foster.

Additionally, the researcher had specific strategies regarding her online communication with all groups. She found that giving students her personal cell phone number in order to communicate was more efficient and accessible for some students when arranging meetings. Moreover, she found that there is a need to have both very straightforward but friendly communication with groups when writing by email. She bolded times, dates, and locations for all meetings within the heading of the emails and always began and ended with personalized greetings, often tailored to each group and their progress. This was a time-consuming process and took more effort than sending mass emails to all participants, but the decision was made that the personalized nature of these emails was important. Invitations to the evaluation activities were given to each student individually along with an explanation of benefits and activities. The researcher made special effort to professionalize this letter and to remark about something of each students' individuality when inviting the student.

The decision was made to have only the researcher attend all focus group sessions, alone. She was the sole moderator and note-taker. The decision to do this was also for reasons of trust and honesty. Desiring honest feedback about the positives and negatives of the program, the researcher decided not to invite a new person into the room which may have changed the environment of the room into one which the students would be more hesitant to express emotional thought or criticism.

Finally, the evaluator spent time writing after every interaction with the experimental groups in order to reflect upon her own practice emotional reactions, etc. Emphasis on the

importance of critical reflection is crucial for evaluators, particularly those that engage in relational and facilitation-oriented practices, such as participatory evaluation (Archibald, Neubauer, & Brookfield, 2018).

Limitations of the Research Design

There are also limitations to the study design which are important to acknowledge. Perhaps the most important is the nonrandom selection of entrance into the program. This is a self-selected group of students who enrolled willingly into this program. The findings of this study will therefore be more generalizable to highly motivated, educated, and civically active students more than it will be to youth in other settings. Also, while random selection of groups to participate in the experiment was undertaken, students could choose not to participate in the experimental activities, or to participate in some of the three meetings but not all. Students were incentivized through social desirability rather than tangible incentives, so they were told how participation could help to improve the program, could provide them some future professional benefits, and could lead to their co-authorship on future evaluation reports. Out of 40 students invited to participate in the evaluation four never participated. Of these, two were also non-active participants of their group projects. As a result of this variation in participation, the treatment was not evenly distributed among every participant, with some participating in all, some, or none of the experimental activities. However, the choice to have optional participation is important both philosophically for the nature of a participation in research and evaluation itself (Tandon, 1981; Hall, 1992) but also due to the group-level analysis strategy planned by this study. Therefore, individual changes are not the core component of this study, but rather group-level and relational changes which occur as a result of additional participation exposure.

Another limitation to this study design include the non-balanced nature of the groups (there were seven in total with four in the experiment and three as controls). Initial methodological plans considered just two groups (one experimental and one control) but given high levels of interest in the program, the researcher chose to accommodate seven groups. Rather than drop one group from the study to achieve balance, the researcher chose to allow for four experimental groups in order to increase the amount of data collected during the treatment process. This was done with the consideration that some students would not participate in the experiment or would participate in some but not all activities and widening the potential contact with students would allow for more information to be gathered on the key component of study. Additionally, given that the analysis plan includes descriptive and discrete comparisons between groups rather than statistical analysis of variances among groups the decision to allow for seven groups was upheld.

Another limitation is that this study is not a blind study in that those who participated were aware that others were not participating, i.e. that they were invited to participate in a unique and additional activity not available to all students. This can cause participants to act differently than if they were unaware (Trochim & Donnelly, 2008). This is true for both experimental participants, who may have felt special for receiving additional activities, or to the control group participants, who may have felt left out for not receiving these additional activities. Either of these reactions can influence how participants behave in the program and their responses to the data collection instruments. Given that most students did not know one another prior to joining the program, and given that Penn State is a large university, it is not likely that the students in the experimental versus control groups would have discussed this, but it is possible.

Finally, this study uses a small amount of cases (66 students across seven groups) with which to base the research results. This is a small-scale study within a single location and setting which can reduce the statistical generalizability of the findings to other settings. However, the purpose of the study is to unveil indicative evidence of the impacts of participation rather than to compare many diverse contexts in which participation takes place, so the small-scale nature does not limit the ability to answer the research focus of this study. Another practical limitation is that of a short time frame and limited funding. The researcher did not have either funding to hire additional research assistants to support the program delivery, nor a long-time frame with which to deliver the program. The core experimental activities and data collection took place in the fall semester. Students continued to complete their final products and presented them in the spring semester, but data collection occurred over a 10-week period in the fall. Longer-term impacts and reflections on the evaluation and the program therefore, was not captured. This is an area for future research the researcher can engage in as she has the contact information and relational capital with the participants to follow up at a later date, but was a practical limitation of time and funding for this study. However, given the same argument as above, that the goal of the study is to understand the indicative evidence for (or against) additional participation through evaluation, the shorter time frame can ensure that any changes are due to the program and the experimental treatments rather than due to additional professional or educational activities outside of the program, reducing the challenge of confounding factors and experiences interacting with the study outcomes (Trochim & Donnelly, 2008). Therefore, while there were limitations to the study design, the main limitations do not severely curtail the ability to answer the core research questions driving this study.

CHAPTER 5

RESULTS

Introduction

This chapter describes the key results of the study findings. This study used a mixed-methodology approach to gather both survey data and focus group discussions among all seven Youth as Researchers groups. The quasi-experimental nature of the study design allows for these mixed-method findings to be compared across the experimental and control groups. Therefore, this chapter will explore not just the experiences of the Youth as Researchers during their time in the program, but also the differences in the experiences of Youth Researcher groups which participated in additional evaluation activities (treatment or experimental groups) compared to those who received only the standard program experience (comparison or control groups). This chapter will first describe each of the seven Youth as Researcher groups. It will then describe the overarching qualitative findings including differences among the experimental and control groups. Quantitative results will also be compared by experimental and control groups. Chapter 6 will then interpret how these findings can be incorporated into future studies, programs, evaluations, and theory.

Description of Individual Youth as Researchers Groups

This study examines the experiences and changes of seven different groups of participants who were part of the Youth as Researchers program at Penn State. Three groups made up the control groups for this study, while four groups made up the experimental groups and participated in additional evaluation activities beyond their standard program experience.

This section will briefly describe the composition of each of the control and experimental groups, including the demographics of each group and their chosen topics.

Control Groups

Three Youth as Researcher groups comprised the control groups for this study. Group 1 chose the topic of students' perceptions of diversity-related classes at Penn State. This group originally had nine participants, but one left this group to join another, leaving eight participants. Group 4 chose the topic of immigrant students' perceptions of free speech on campus. This group was originally eight participants but one participant dropped out of the program due to an internship opportunity out of town, leaving seven participants. Of these seven participants, just two remained actively engaged in all aspects of the program. Group 6 chose the topic of perceptions of sustainability programs and recycling at Penn State. No participants left or entered this group, although one participant became inactive after the initial training, leaving nine active participants. Table 10 displays the demographic characteristics of these groups.

Experimental Groups

Four Youth as Researchers groups comprised the experimental groups for this study. Group 2 chose the issue of food insecurity on campus and originally had nine participants. One participant switched into this group after the training, which increased the group size to ten participants. Group 3 also chose the issue of food insecurity on campus and had ten participants. No participants left or entered this group. Group 5 chose the topic of self-described identities of Penn State students in order to explore the issue of intersectionality. This group was originally ten participants and two participants joined the group after training, while two others from the original group became inactive, leaving the group size at ten. Group 7 chose the topic of Penn

State women’s perceptions of empowerment and was originally nine members. One participant entered this group after the training and one participant left this group for another topic, keeping the group size at nine. Table 11 summarizes the demographic characteristics of each group.

Table 10: Control Groups Demographics

Group	Topic	Gender	Race (Self-Described)	Year
Group 1	Students’ Perceptions of Diversity-Related Classes at Penn State	Men- 3 Women- 5	White- 1 Black/Liberian-American- 1 Black- 3 Black, Senegalese or African- 1 Hispanic- 1	Sophomore-1 Junior-1 Senior- 5
Group 4	Immigrant Students’ Perceptions of Free Speech on Campus	Women- 7	White-Irish/German- 1 Middle Eastern-Persian- 1 Indian-American- 1 Caucasian, but I recently discovered my Hispanic heritage- 1 Caucasian- 1 Mexican American-Hispanic-Latin- 1 White/Hispanic- 1	Freshman-1 Sophomore-2 Junior-2 Senior-2
Group 6	Perceptions of Sustainability Programs and Recycling at Penn State	Men- 2 Women- 7	Nigerian-American- 1 Half American, Half Lebanese- 100% Caucasian but consider myself Middle Eastern- 1 White- 1 South Indian (American born citizen)- 1 African American- 1 Latina-Dominican- 1 Asian- 1 African- 1	Freshman- 3 Junior-3 Senior-3

Table 11: Experimental Group Demographics

Group	Topic	Gender	Race (Self-Described)	Year
Group 2	Food Insecurity on Campus	Men- 3 Women- 7	Indian American-2 White- 7 Asian- 1	Freshman- 5 Sophomore- 2 Junior-1 Senior-2
Group 3	Food Insecurity on Campus	Men- 4 Women-6	White-5 Asian American-1 Black or African-American-2 I look White but I'm from a Filipino family- 1	Sophomore-1 Junior-2 Senior- 7
Group 5	Self-Described Identities of Penn State Students	Men- 1 Women- 9	White or Caucasian- 5 Black & Native American (American Indian)- 1 Asian- 1 Hispanic-Cuban- 1 African American/Caribbean American- 1	Freshman- 2 Sophomore-3 Junior-3 Senior-2
Group 7	Penn State Women's Perceptions of Empowerment	Men- 2 Women-7	White or Caucasian- 3 Black (African)- 1 Arab- 1 Hispanic & White -2 Ashkenazi Jew- 1 Hispanic/Latino/Puerto Rican- 1	Freshman- 2 Sophomore-2 Junior-1 Senior-4

Qualitative Findings

Qualitative Analysis Procedures

This study utilized focus group discussions as the main form of qualitative data collection. Seven one-hour focus groups were conducted, one for each Youth as Researcher group, in December at the conclusion of the main participation in the program. A moderator's guide was developed and followed which focused on asking participants to reflect upon what

they learned about themselves, research, and their topic throughout the program. It also asked them to spend time reflecting upon the group dynamic and decision-making processes they had to go through to choose and carry out their own research projects. They were also asked to reflect upon what they will take away from their experience in the program and why they were initially drawn to join the program. The full moderator's guide can be seen in Appendix F.

To analyze the qualitative data, all focus groups were audio recorded and then transcribed by the researcher. Once transcriptions were completed, coding of key findings took place in seven stages, with codes being narrowed over three cycles. This cyclical nature of coding is recommended and common (Saldaña, 2013). The first four stages of the analysis were done manually on paper, while the 5th-7th were conducted electronically. The analysis of the focus groups was done only by the researcher, a second coder was not used. The use of a second coder can help ensure the integrity of the final codes chosen and provide a way to cross-validate findings to ensure consistency and lessen bias in the coding process (Saldaña, 2013). However, in this study a single-coder was used, in this case the researcher coding alone. There was a lack of both time and monetary resources to hire, train, and use a second coder for this research. In order to combat some of the downfalls of not having a second coder, the researcher used three specifically suggested techniques- she engaged in member checking with all focus group participants directly after the focus group discussion. This allowed for any additional comments about her initial interpretation of the focus groups to be discussed by the focus group participants themselves. This at times led to clarification or an addition to the discussion. Secondly, the researcher engaged in initial coding during the transcription process itself and kept short summaries of each focus group as she completed summaries. Finally, she kept detailed reflective notes about the focus group discussions and her interpretations of them directly after completion

of each focus group, allowing her to cross-check her findings with observational and reflective notes. All are considered ways to strengthen the single-personal coding process (Saldaña, 2013).

Stage 1: Initial detailed coding of each transcription. During this stage, the researcher made notes in the margin of each transcription. The goal of this stage was to gather as much rich variation in ways to summarize key points made by participants in the focus groups as possible. Editing was not done during this period, but rather the researcher went through each transcription one full time and wrote down codes in the margins of the paper.

Stage 2: Narrowing of the initial codes was conducted. Every single code that was written in the margins of each transcription was written down on a separate piece of paper and an initial collapsing of codes was undertaken.

Stage 3: Reapplication of Stage 2 codes. The researcher used the narrowed coding scheme from Stage 2 to re-read and mark the transcription (on the opposing margin of the paper) in order to analyze the entire manuscript with a more minimal coding schema.

Stage 4: Defining and narrowing Stage 3 codes. The researcher reviewed all quotes applied to the Stage 3 quotes in order to create yet more narrowed codes for each focus group. At this stage, some codes were collapsed and some overarching themes were created. Codes were renamed, redefined or rearranged as deemed appropriate by the researcher.

Stage 5: A final read-through of all transcriptions was undertaken and final themes and codes were selected. Electronic codes were inputted into word document files of each transcription with a letter-number organizing system that corresponded with these finalized themes and codes.

Stage 6: The final codes and themes were taken as a guide and all quotes were reorganized to fall within these codes electronically. At this point, the transcriptions no longer read in their time-ordered fashion, but rather by code. This way, all illustrative quotes for each code were easily accessible in one location electronically.

Stage 7: Final memos were written which describe each overarching theme and code for each group's transcription. These final single sentence definitions were then used to compare and contrast key findings from among the groups. The findings from Stage 7 can be seen in Appendix G.

Once Stage 7 of the qualitative analysis was completed, the researcher noted themes that were overarching among all groups, themes that were unique to control groups, and themes which were unique to the experimental groups. There were also some themes and codes unique

to each individual group. These themes are described below. To protect the identity of participants, just a single initial was used with their gender in parenthesis. At the end of the quote their group number is listed. A summary of key overarching themes by all groups, control groups, and experimental groups can be seen in Table 12.

Table 12: Summary of Overarching Themes

All Youth Researcher Groups	Control Groups	Experimental Groups
Unusual university opportunity	Struggle to solve logistical problems	Connection to the program through evaluation
Fostered self-reflection and learning	Self-reflection and learning	Deeper reflection and learning
Mixed emotions about the hands-off approach		
Working in a group and managing group dynamics		
Responsibility and motivation		

Overarching Themes Common to all Groups

All groups expressed attraction to the Youth as Researchers program because it represented an *unusual university opportunity*. That is, it allowed for creative and intellectual freedom for students in an academic setting not tied to their traditional schoolwork. It allowed for experience with social science research, as opposed to science lab-based research. Students also expressed that it was unusual to find an opportunity at Penn State which allowed for them to engage both their heart (the desire to right social injustices and engage in activism) with their minds (through engagement in research and the application of their academic knowledge).

L(F): Um, it was interesting how highly specified it was. Like, we got to pick what we were researching whereas a lot of times on a college campus you're researching whatever the professors feel like doing. So, you're kind of like at their leisure. Whereas this is more like, it's

something where you actually are truly passionate about, and that's not something common in college outside of the classroom where you really have the opportunity to do. And learning, then, people mentioned this, it was learning for the sake of learning not learning for the sake of a grade. Which is an entirely different experience. Like, since kindergarten it's been learning for the sake of a grade, not learning because you want to. And so that was really refreshing. [G2]

K(F): It seemed like an active way to, um, bring like service activities and things that I did into more of like, an academic setting. [G3]

S(F): Just do it. it's something, I don't think you'll ever get the chance to do it again. Unless you're, I don't know, as a liberal arts major, there's not really, well, let me say poli sci major. There is not many opportunities for me to do research.

N(F): Yeah it is a lot more like med paced.

S(F): Yeah like research is definitely like med or psychology.

N(F): So, when I saw this I immediately jumped at the opportunity. Like social justice research that is like, unheard of, like, I have never seen that before.

S(F): So, the topic is definitely interesting so liberal arts majors should definitely should go for it. [G4]

A(F): Um I really have wanted to do like research-based advocacy, um, as a career, so I thought this might actually be like the perfect experience (giggles) for me to get in college and also as a freshmen, um, I needed to find a way to get some kind of experience because people always want you to have experience but, like how do you get that first shot? (coughing in background) Um, so I was really excited about that. [G5]

J(F): It's kind of accumulation of what everyone was saying. My major, I'm also BBH major, and a lot of the research is like science-based like in a lab or something like that. So, I thought this is a lot more hands on. We got to do, we had more freedom to do what we wanted and we got to design our own, you know, experiment, and carry the whole thing out ourselves. So, I really like that about the program. [G5]

All groups discussed how participation in the program *fostered self-reflection and learning*. They discussed learning about themselves, their strengths, weaknesses, leadership styles, and aspects of their personalities or preferences they were not explicitly aware of before. They also discussed learning about their topic. In particular, they mentioned how participation in the program caused them to challenge their assumptions about the topic, exposed them to surprising insights about others' perspectives, and enlightened them about how organizations serve (or do not serve) the issues they were exploring. They learned about research as well, the difficulties involved in narrowing a research topic to be feasible, the social dynamics of studying humans, and the validity and diversity of social science research.

A(F): I definitely saw growth, especially doing this particular project, saw growth in myself in being able to be more open-minded about doing other projects if it's not, if it wasn't my initial project that I wanted to do. Being able to say oh hey, I kind of like that and being able to enjoy that from there. [G1]

W(M): For me I would say, I was capable of more initiative than I thought. Cuz, like I had noticed when it came to like, the group meetings I was finding myself taking notes, and like the google doc and things like that, you know what I mean. And when I was younger and stuff like that, I would always be the one who shied away from doing responsibilities like, and I noticed like, just like yeah. [G1]

A(M): I would say so. I mean, I was aware of the issue but I didn't really have a whole lot of facts about it. I think the biggest take away I took from it is it is food insecurity manifests itself in a lot of ways. It can be based on your transportation, your access to food, whether or not you're eating nutritious food. And so, it takes on a whole lot of different roles. And even just from our survey, in some instances we were seeing that there was a large majority of the students who were experiencing certain variations of food insecurity, and more so than you would really think. [G2]

D(F): I think, for me, like when I think of research, I'm a STEM major so I think of very like, concrete like, in the lab doing research with a professor in a group and writing a paper about it after. So, I think that learning that research can be not just that, but also social research where you do interviews or you like send out surveys and you do it like that. That was kind of a learning experience for me that there's different methods of doing research. [G2]

A(F): I think I've realized in myself how I am in a group setting. Like I really like to get things done. I like things to be on time. I like for there to be an order in things, so like, I was definitely within the group constantly trying to make plans on the group chat and like, email you and ensure that we were all on the same path. [G6]

A(F): Um, I learned that empowerment can be defined in a lot of ways. Which I think we kind of discovered when we were creating our question. Um, but even when I was like talking to people about the um, about our research, some people think that empowerment is more defined by like what you do in the classroom, some people think it's more, you know, are you a leader or not? Like one of the people that I was interviewing said like, you know, she's not a leader at all, but like she still considers herself empowered. Um, and I think that's a really fair point. So, I think it's just it was interesting to see how many different perspectives can go into one term. [G7]

Groups had *mixed emotions about the hands-off approach* of the program. Both positive and negative aspects were discussed. Positively, the hands-off approach allowed for freedom, development of maturity and responsibility, and group self-organization. It also required the development of personal and group level internal motivation rather than relying on external sources for accountability. Negatively, the hands-off approach required groups to organize themselves, which not all groups successfully achieved. Variations in background experiences

with research or academic experience at Penn State made the hands-off approach more challenging for some groups than others. Desire for more programmatic structure, particularly an external accountability source and scheduling/required deadlines was expressed by some groups.

T(F): I think it's important and it was also really, I'm not trying to sound corny, it was cool in the sense that usually we come to a university, and it's a sheltered bubble, where we're always warned when we get to the real world it's not like this where you have to figure out the answers on your own with whatever resources are thrown at you. So, it gave us, in a sense kind of like a reality check because when we get out there and we are doing research, and we have to make big decisions, there's no one who's necessarily going to be there to hold our hand the entire way. And we're going to have to answer to people, whoever those people are. We need to have whatever research, whatever findings we have, because we're the ones doing it. And like you said, it's a learning by doing process and that's what I enjoyed about the premise of the program. [G1]

D(M): I think that the hands-off approach really made it feel like our project rather than just something we're told to do. So, it makes me like actually excited to see the finished product when we're done with it. [G3]

A(F): I mean, to go off of that I think he's right. With, it was hard initially, and there was some times that we, like, hit a wall. But I think, like, all in all, it was actually beneficial about how hands-off you guys were just because we, we had to take it on and move through every single wall we hit. And we had to work together, I thought that it was a really cool way for us to learn and work together. [G3]

T(M): I mean, I kind of appreciated it because, just staring into the world outside of school, you kind of realize that at your job you might not have that kind of structure that you're used to in school, so there's no you know, these are the steps to take. You might be handling a case or a project where there's no clear-cut steps, or there's no clear-cut answers. So, for me it's actually pretty close to what reality might be outside of school, so I kind of appreciate that. [G7]

E(M): Yeah, I just kind of agree that at times it definitely felt up in the air, and the lack of structure was cool cuz we had to like, kind of find things our own way, but it was also hard because you know, without that structure it's really easy to just put this on the back burner when there's schoolwork and jobs and all that other stuff. [G1]

S(F): I think the hands-off approach works best when the group is active, but I did find the hands-off approach to be a little challenging. [G4]

C(F): Yeah, I did really like the hands-off approach because it's something we don't really get a lot of opportunity to do, and it was a good way to be kind of be introduced to it. Um, but, I also think our group could have benefited, I don't know, maybe from one more training session or a little more help, maybe just in the beginning just to help us kind of get started. Because I know for me in the beginning it was a little overwhelming to try to figure out how to create this project. But overall, I did like the hands-off approach. [G5]

F(F): I think the fact that we had the freedom to choose the topic that we wanted was a really positive thing. On the other hand, I also think that check-up meetings that you guys did were

really important and so that the hands-off approach has its positive side and its negative side, but I also think that there should be more, like more of a stricter kind of, I don't know, matrix where you give people the freedom to develop their research, but at the same time you check up with them, and you kind of like direct them in the right direction, as you've been doing. So, I think that's how it should be. I think people would benefit from that. [G6]

A(F): For me it was harder because like I am a BBH major, and I have been in research I've done research for three semesters and one summer. So, like for me I like, I thought like everything was going to be structured like how it is in my lab and then you get there and this person has this task, this person has this task, and this person has this task. And like, we are all allowed to grow, but in that specific region. But then we needed to figure out as a group what is the region we're going into? And like, where are, what are we doing? And why are we doing it? And like, she wants to do it for this reason, and she wants to do it for this reason. How are we going to accommodate those two reasons in order to make it good? So that she is equal interested as she is. So, I think that was the real challenge for me. Was like, not having a PI, not having someone who tells me do this, do that. And yeah. [G7]

All groups discussed how this experience required *working in a group and managing group dynamics*. Groups reflected on their appreciation of group relationships, diversity of thought within their groups, the development of friendship, and respect among group members. Many expressed an appreciation of the chance to meet and work with like-minded students who they might not have met otherwise. Despite these appreciative elements, groups also discussed the logistical challenges of managing their group, in particular the management of group communication and regular meeting times. Some groups were able to effectively infuse governance strategies that worked well for their group while others struggled to maintain meeting times which stifled their development and group relationship.

T(F): But I feel like the overall process was good, because if you have people who have different types of experiences and skills, that definitely improves the research process. Like you'd taken the, I think it was the research, the statistics course (W(M)- yeah yeah yeah, I'm taking statistics) and that definitely assisted. Even if you didn't have that experience you get to gain something from someone who does which definitely improved the research process. Because if we all came on in the same exact majors or same exact type of thinking, that would have defeated the process of learning how to do research, or gain new perspectives. You can open up your mind. [G1]

L(F): I think everyone at least had like, a good amount of opinions and like, ideas for the group. Definitely just organization, was just a little bit of the problem I think for everyone. Because of timing and things like that, and everyone has different commitments. But overall, I think everyone kind of, at least, had an idea put out there. Um you know, if they like only showed up to one or two meetings and things like that, so. [G1]

W(M): So, we lost time and it's like yeah, we were like a lot of people in this group are involved, or like work, and like, are busy people. And so like, it was definitely hard to find meeting up wise, it was definitely hard and communication wise. [G1]

D(F): Yeah, I don't know, I don't think we didn't really have any arguments (yeah yeah) and I think part of that is just the fact that we weren't able to get everybody together all the time. So, it's like, we'd have like five people, so we reached a cohesive agreement with those five people, and then it was just kind of like, oh, just kind of ride with it. And like, nobody had any problems with not following along with what was going on. So, I think that we were cohesive in the sense that we didn't argue about what we wanted to do. We had constructive debates, not arguments (E(F): yeah). [G2]

B(M): It really helped that we were all able to make it. We all had time that we were able to get together as a group. That really really, really helped us form cohesion. And any time that we did hit a wall we moved through it pretty quickly just because of our variety of backgrounds. We were able to bounce off each other pretty quickly (inaudible, mumbles). [G3]

S(F): Yeah, sometimes in like, group projects for classes, you always have one or two people who don't pull their weight or don't show up to meetings. So, it was nice to be in a group that was consistently showing up and doing their part. [G3]

E(F): So just going off what you said, it's really cool to be around a group of students who actually very genuinely care about something and they are not just going through school trying to like get passing grades and then party on the weekends all the time. Like, (A(F): haha!) they care about something along with maybe some other stuff like that. So that was cool. [G5]

L(F): Yeah, just to add to that. I feel like I've been in groups before where you present an idea and everyone's like yeah let's go with that, let's go with that, and they don't really think about it. But I feel like when someone presented an idea in this group there were people there to help shape it and like critique it positively. [G7]

A(F): Um, I think what I am taking away from it is that there are lots of passionate people out there um, who, if you like come together as a group and work towards a common cause uh, like you're not alone in thinking like I want the world to be better. And it's nice to have a way for people to find one another and try to achieve goals. I think like just like 2017 in general has been a rough year for me, I don't want to speak for other people, but always I keep up with the news, and it's very depressing and um, just seeing other people who want to make a difference and who want to uh, they're ambitious enough to approach those goals. I think like that's the main thing I'm going to take away from this. [G7]

All groups also discussed how experience in the program made them reflect on their personal and groups' level of *responsibility and motivation* to complete the research.

Participants across all groups talked about how their experience in the program made them think about the source of their own motivations for participating in the program and recommend this

program only to future students who have an internal level of commitment and motivation to do research. They discuss the importance of being active and staying committed throughout the entire research process and how experience in doing self- and group-driven research can benefit them in the future by honing their personal discipline and ability to manage their commitments.

A(F): Yeah, I definitely agree. I think it taught discipline in a different way than college, then we typically think college. We come to college we think you know, we learn discipline of like, you know, doing your own laundry and things of that sort, but it taught discipline in an academic form. (T(F)- mhmm) [G1]

W(M): I would just take away like, just like real life experience. Um, with like doing group research. Because this was, this is group research, you know, we gonna make mistakes, we gonna have bad communication, we gonna mess with our structure and like um, the experiences like, learn from like the mistakes that we made and like going forward ok, next time let's do a better job setting structures, let's do a better job communicating. What happens if people can't make it to a meeting what are we gonna do then? You know? So, it was definitely really really good experience learning to move forward, you know. And give us like the power to say we can do something, we are researchers. We can reach out to professors and present in front of classes and get people to like, fill out our surveys and things like that. You know? [G1]

S(F): I think I would tell them to like, be ready to be sometimes frustrated. And like, be ready to like really hold yourself accountable and keep yourself in it, because I think all of us were expecting a little more like motivation, deadlines, like we were talking about before. Just kind of like, expect to have to kind of hold yourself a little more accountable than you might think. [G2]

N(M): I would say like, I would definitely recommend it. I would say like, you have to work a lot like, autonomously. And like, you're going to be working in a group, but you have to do your own share of work and keep on track with your own stuff basically. [G2]

A(M): I think for me it's just been a more or less recognizing my motivations. Because obviously this is something I signed up for on my own, and then, at the same time I kind of found myself not doing as much of what I wanted without that kind of like outside guidance and pressure. And so, this isn't sort of a developed thought, but it's just thinking about what motivates me to do a good job, whether it's just working towards a grade or being satisfactory in a research position, or actually doing really well with something that I'm interested in. So just kind of, just trying to, to develop those thoughts a little bit more. [G2]

S(F): Um, I think I would say that it's a great program, but just like to know why you want to join. Um, because yeah, it's great for resume, but if that is the only reason that you want to join then you're probably not going to be as committed to it as you know, your group wants you to be. Um, there has to be some sort of passion involved behind it. So just know what you're getting into. Because there's a time commitment involved. [G3]

S(F): And also, like, I don't know, like you're a freshman and I'm a senior and I think other people are like a combination. I don't think like, that should play into it, but I feel like for a freshman to go into it it becomes kind of like overwhelming for them to like handle all this

responsibility. Um, especially because, I don't know, I just think of myself as a freshman and I'm like oh yeah, you definitely wouldn't have done this. You definitely would have been not communicating. But I think that's the biggest challenge, is like, people kind of like at first we were all like really motivated to do the research. But I think even like me and you kind of fizzled out towards the end. [G4]

E(F): I think off of that for me, is just like been a very much like, uh strengthening of the idea that if something is going to be successful, I have to be really self-motivated. [G5]

S(F): Also for me it was finding that balance, for example, I use an example of sports as an analogy. It's like finding that balance between a team sport and an individual sport. In a sense, this was a team sport, but it very much as well was an individual sport. Think of like you know you're on the track team, you're a sprinter. So, you're 100% accountable for your times and improving your scores, but you may be on like the 4 x100 team and so you're on a relay team and what you're you have that team aspect, but it's also individual, and for me just finding that balance. I am taking this as a learning experience like I said I will handle things differently but I have never had to find that balance even though I have been like I've been on individual sports and team sports, and teams. Um yeah. [G5]

A(F): I agree with you, that's definitely a good word. Driven. Like in my head just because we voluntarily signed up for this and we sought out this research opportunity, you would expect that with that would come that drive for people to want to get this done, and want to see it followed through and what not. So, I think the surprise was that it didn't really end up being like that for many people. [G6]

T(M): Yeah, I would definitely tell whoever approached me to go for it. Just based on the assumption that you really want to do it. Because it is a considerable time commitment. Um, and based off the assumption that this person is going to stick with it. So, you have to be committed throughout the whole process, because I found that you can't just really skip any portion. Everything builds on everything else so you have to be committed for the long run. So. Yeah, that's what I would say. [G7]

Overarching Themes among Control Groups

There were unique themes present among the control groups. The first was *struggle to solve logistical problems*. The three groups which made up the control groups struggled to solve their internal group logistical challenges and did not regularly use programmatic resources, in particular the weekly check in meetings recommended and made available by the program staff. These groups reflected a more passive stance towards their group's progress and struggled to make quick decisions. Group dynamics among these control groups were a challenge partly due to infrequent meetings and challenges to communicate outside of meetings.

E(M): Um, I mean, I think maybe because it was kind of a short period of time, and we were only meeting once a week and like, most meetings like a lot of, at least half the group couldn't be able to make it just because like school responsibilities and other stuff like that. [G1]

A(F): I agree. I think in terms of like, the difficulty, I think that because of like, the process that goes into narrowing down things requires a lot of meeting up and because there is a short amount of time and we didn't have the best, like, communication, because we knew from the beginning our group were full of busy busy people, so it was um, and we had so much- I don't want to say we were, you know, overestimating what we could do, but I think that because of what we wanted to do versus realistically I think it was hard to kind of, um, be able to accomplish all that we wanted to do in the time. So, I think that perhaps like, yeah it was more so like, the timing. Just how much we can meet up and be able to do those things. Cuz those conversations were great but they didn't happen forever because we couldn't meet up as much as we wanted to. [G1]

S(F): I think the hands-off approach works best when the group is active, but I did find the hands-off approach to be a little challenging, and also because I didn't do research before, so I'm like I don't know, I am not sure what I am expecting, I am not sure what is going to come out of it. So, the hands-off approach there was, I was a little wary of. But, I think agreeing with her, I don't know if our group met weekly with you guys, but the times that you guys scheduled to meet with us, to help us with research I think those were really important because it definitely helped. More than like, they were more productive than our own conversations. [G4]

O(F): I feel like we already talked about the meeting, of getting to be in the same place at the same time was also a big challenge for us. Because people would say they are showing up and then five minutes before time they wouldn't show up or something would come up and they would miss like the whole hour that we spent together. And then the next meeting they would be behind and they would have different opinions. And we would want to make sure their opinions were heard as well. And stuff. So, we had to put everything they were thinking into consideration. And that would put as back as well. [G6]

F(F): I think regarding role assignment. That was definitely one of our biggest challenges as well, I think. Because some of us would tackle a task and then someone else would also sub in, or they would also jump in and do the same thing at the same time. You know when we're like editing the files and everyone would jump in and everything and we got confused on what we're doing. So that was confusing as well. We didn't really assign like clear roles I think. [G6]

The control groups discussed about their *self-reflection and learning* as part of the program. In particular, they discussed *lessons they learned for the future* such as practical ways they might improve group management in the future while holding themselves more individually accountable. They were *surprised by things they learned about research*, in particular that research builds upon small questions into larger bodies of knowledge and that qualitative data is a valid form of data collection. They had frank and honest reflections upon their *personal and*

group shortcomings and mention how their group challenges required them to think about their own personal responsibility and leadership styles.

D(F): Communication is very important. Um, not only with your group members but also like if you're trying to get something accomplished, um, communicating with those in like, in the higher ups like, talking to you guys, and sometimes not just expecting you guys to come, but saying hey, maybe we would prefer to have you at this meeting if you can come. Because we need some type of guidance or some type of structure or just your thoughts on what we doing so far, just wanted you to listen. Having that communication. [G1]

N(F): You're like tempted to like, want to go and like have this broad and big research question. Like, it's so tempting to like want your question to be like have like, five like, indents you know? But like, it just needs to be like a one sentence question. And then like the interview questions will come naturally. But it's just like finding the focus question was very difficult I think. [G4]

N(F): I feel like my tolerance, like, group wise, if this was like, a group project for like, a group or something like that, I feel like, if my group members were like, unresponsive I would've just like flipped out. I would have completely lost it. I just would have gone through and just did everything by myself. But I was like a little more tolerant I think, and I was like, ok with it not taking it to heart when people didn't respond and just be like ok, well we can still do our own thing we don't necessarily need them. Yes, we would like to have them, but we, like our success of our project doesn't necessarily mean it has to be, it doesn't depend on people. [G4]

A(F): I think just generally how I am in group settings. This is by far the biggest group I've ever worked in. So many people, and we are all like in different majors and stuff, so we are all different. So, one way you speak to one person may not necessarily like, work with how you speak to another person. [G6]

F(F): I personally describe myself as a servant leader. But, in this case, like during our first meeting, for some reason I just decided I was just a leader for the day. I was conducting the conversation and just leading everybody's opinions and you know, just asking around and for some reason just leading. Which is not necessarily what I do. I don't necessarily like, take the lead first hand. I usually just go with the flow. But yeah, that's just what I learned. [G6]

There were also themes which differed among the control groups. The *level of openness and discussion* differed among groups in the control group setting, with some groups being very comfortable with open discussion and disagreement, while others were uncomfortable. There was a *strong desire for democracy* and an inability to make decisions until all agreed in one group, a wish for this in a second group, but less concern for this in a third. The *level of personal confidence* also differed among groups, with one group beginning with high levels of

confidence, and two expressing much more nervousness from the beginning of their experience in the program but grew into confidence over the course of their projects.

While Group 1 was comfortable with open debate and questioning within the group, Group 4 and 6 were less comfortable with this. For Group 4, this was due to lack of meeting with one another while for Group 6 it stemmed from a lack of trust and comfort with one another.

D(F): ... being in this group ideas always bounce off of each other. So, it was like, and we all didn't agree. Which I liked. Everybody wasn't like ok, someone said one thing and we all just like jumped on it. We all had different viewpoints and all those different viewpoints made like a good, solid question that we could ask. Because we like jumped at it and we looked at it from different angles. [G1]

B(B): Um, (coughs). I feel like it was um, constant um, asking questions. A lot of us were trying to really explore different ways of kind of answering of um, our research question, but more importantly, um, I feel like every time we met for those first like, maybe one to like three, four, the first three or four meetings, it was getting deeper and deeper into finding that question. And I feel like it, like a lot of us come from different um, most of us were in like social sciences, so I feel like we approached it with trying, using what we know to try to answer questions. So, it was, it was, it was, in the beginning it was really like more like of a discovery mode kind of. [G1]

L(F): (Laughs). No, I definitely agree with all that. Definitely we had lots of different ideas. And since we were all kind of different majors we were able to like, have ideas from different points of view. So, that was really helpful until, like, asking more questions and getting more ideas. [G1]

Both Group 4 and Group 6 had a concern for more democratic decision making and trepidation on not accommodating everyone's perspectives that was not present in Group 1, making these groups less comfortable with open discussion.

N(F): But doing it on your own and not having any. Cuz I feel like I already, I feel like you already know what I'm going to say and I already know what you're going to say, and we didn't have anyone else's input, you know? And so, we essentially agreed with each other most of the time. We didn't have like someone else, or anyone else telling us, well this would have been better. Like, anyone else's extra input. So, I feel like then it got kind of like, like boring, so to speak. [G4]

A(F): Yeah kind of like how I mentioned earlier. We were all kind of like, quiet, and wanted to respect other people said so we kind of just like I said, people would just go off on a tangent and talk about things that weren't necessarily relevant. Because we weren't comfortable with each other yet we would allow that to happen. [G6]

There was also differences in the level of confidence each group expressed of their ability at the beginning of the project which was tightly related to their past experience in research work.

B(M): Um, I joined the um, program because I was already doing like, um individual research with the Ronald McNair scholars program, but I wanted to see how it would be like for me to do group research as well. [G1]

E(M): I think most of us have like, a pretty good background in just like, in like, some of us were really good in like, some of us had experience doing research, and others of us were good at um, like thinking of questions and topics and stuff like that. So, I think just kind of like a mix of different backgrounds and experiences was a positive. [G1]

W(M): We definitely started off overly ambitious. We started off overly ambitious (giggle of agreement) and so we started out overly ambitious, and that kind of like, reduced our time, because like, alight we were overly ambitious, we set up a plan, and then had to go back to square one when you met with us right? [G1]

Group 4 was more nervous about their previous experience in research and learned about the process during their experience.

S(F): I think from, I don't have experience with research. But what I expected was um, the program would be a little bit more hands-on. But I didn't, like hands-on in like, there would be a lot of moving parts to it, but I didn't really, when the actual process came to the research it wasn't the case. I think-[G4]

N(F): -it was a little slower rather than faster, you know what I mean? [G4]

Group 6 also expressed nervousness or uncertainty about what a research project would entail at the beginning of the program.

L(F): Um, maybe that it's just a lot less complicated than I thought it was. Maybe that's mean to say or maybe that's incorrect. Because I don't know the legitimacy of what we did, but, or what we haven't done. But I always thought it was going to be crazy, like I don't, you can't see on the recorder what I'm doing, but I am doing this (hands chopping and swirling), but some like thing like big complicated like, steps, and I was going to learn about how you have to watch their body language. I don't know what I thought I guess, but I thought it was some research, hours in a lab doing research, and it's like they discover the chain connections. But then I was just like oh, a survey, a focus group. [G6]

Overarching Themes for Experimental Groups

Unique themes evident in the experimental groups had to do with the additional reflections related to the participation in the experimental activities. Both directly and indirectly,

groups mentioned that the *connection to the program through evaluation* led to higher use of program resources and motivated them to continue to engage with the program. Participation in the evaluation appeared to serve as a motivational encouragement for these students and even assisted in their logistical challenges. Out of the 4 experimental groups, 3 groups regularly made use of weekly meetings. These groups also expressed appreciation that their input would be used to improve the program for other students in the future.

S(F): I think it helped me stay connected to the program. So, I think that these kind of brought the stakes up a little higher, just in the way I felt that my voice was being heard, and I was interacting with new people and interacting with you more, kind of made me feel more included in the entire process. And like, I feel like I was actually contributing a lot to the program. [G2]

A(F): It made me feel more part of the program too beyond our project which I thought was really cool. [G5]

D(M): Made me feel more important. (laughter) I am just kidding. We were picked out, but I'm kidding. No, it was good because like it feels like we're helping you out also with the evaluation uh to uh continue to improve and uh build up upon the inaugural program uh of Youth as Researchers at Penn State (mmm yeah). [G5]

A(M): Yeah, I just enjoyed, I enjoyed being able to contribute our opinions and see that our, the thoughts that I had on the program were pretty similar to other people, and that our minor suggestions, even just about doing the group training, like, how our opinions on that could actually potentially change the way that the program would be run next semester, and that could have some positive, some positive implications for further groups going ahead. Yeah. And then maybe even just our comments on like, group size, like just, kind of like, being the guinea pigs and hoping that our input can actually make the program better in the future. And knowing that we've had some sort of investment in that is cool. [G2]

C(F): I actually really liked doing the evaluation just because it gave me a chance to see everyone and honestly, like if we didn't do the evaluations, I don't know when I would have seen you guys! (laughter as a group, that's true!). Yeah, but no, I really liked it because it just kind of like made me remember the mission of our project and what we were doing. And I did really like talking to the people in the other groups, especially in the last section we did the interview one, I really liked the guy that I talked to and he had a lot of interesting points that he made that I didn't think about that would benefit our project. We had a good back and forth I actually really liked it. [G5]

L(F): Yeah, I think it was also really cool to see that a lot of people were doing the same media form, like the idea of a video, but they were all so different how they were going to create those videos, go about the videos, create the surveys, interviews, focus groups. Which I thought was really cool to see what they have to say about it, and then to hear where they faced difficulties that were similar to us but also different than us. [G7]

Additionally, participation in the evaluation led to *deeper reflection and learning*.

Groups were able to compare their groups' progress with other groups participating in the evaluation and reflected on the strengths and weaknesses of their unique group as a result. They also mention that the reflective exercises and creation of questions required them to think about their own experience in the program and to remember their overarching goal for participating and their group's overall goal of answering the research question for social change. Participant groups in the evaluation also expressed more nuanced research methods learning, such as understanding the concept of validity in research, learning how to craft survey questions to be precise, and interviewing peers.

The additional evaluation activities caused groups to reflect on their group dynamics and progress.

D(F): I think it made us more self-aware of what we were doing and like, how we were working in our group. So, in that regard it was definitely good to help our group progress in a more efficient manner. [G2]

J(M): I think, I don't know if this is like the perfect word, but like, I think we all are, like, humble, like in that I have heard a lot of groups had like really strong personalities that, like, made it hard for them to like work together. But all of us like were really open to like working together. Like that. [G3]

S(F): And a lot of other groups that, um, I talked to they said they barely ever all met. Um, at one time together. And I know when I interviewed someone, he said that he hadn't even met two people in his group. So, I think just being able to always meet um, and to have pretty much everyone there, every week, was really helpful. [G3]

B(M): It made me appreciate my group more! [G3]

C(F): I agree with that I think the way we went about discussing our topic was definitely one of our strengths because we all had very interesting and intelligent things to say. I was talking to a guy in a different group and he was saying how whenever their group kind of got into a conflict it would kind of be more, like, in an angry aspect (S(F): mmmh! laughter) Where I think for us it would just like, we talked it out more, so that was definitely a strength overall. [G5]

A(F): This sounds horrible- oh sorry go ahead. (S(F): go ahead!) I think I have been more critical of our group just because I have talked to everybody else that was doing their project and kind of we've been building these kind of like evaluation questions, which like has been really cool and

like I that was also like a new experience for me so that was cool, but at the same time I feel like everything our group does I am like hmmm thinking about (laughter) instead of just doing it. So that's just cuz I overthink things (laughter). [G5]

S(F): I definitely think it added to the program because through it you were able to reflect on what your group's doing and see what other groups are doing, and maybe see what they're doing differently, what's working for them, what's not. And you also take a step back and really appreciate what you are doing, and how it's going, and maybe if you don't like the way something is going you can think about like oh, maybe we should work on this. So, I thought it was really good exercise in terms of not just getting the experience of evaluation, but also just reflecting on the research we are already doing. [G7]

The evaluation activities also led to additional learning about research, including evaluation as a form of research.

K(F): I guess it gave like light to a different form of research that I don't think many of us had done within classes and things like that. Like I hadn't really thought of evaluation as its own form of research. So that was an interesting thing to be a part of maybe. Especially as members. [G3]

S(F): That's what I was about to say. That's something I've always wondered like whenever I'm doing a survey or an evaluation I am like hmm I wonder how they came up with this question? Or what made them ask this question? Those are questions I've had about evaluations, so just like to see how it is formulated, was interested for me and being a part of that as well was cool. And again, yeah it was just in terms of seeing you guys. [G5]

A(F): Um, one more thing. I just think it's also important, I am also taking away from this is that it's important to get to know each other's stories. From the people we're interviewing and getting to know. I think it's important that, this kind of goes along with the fact that this is qualitative research instead of quantitative- quantitative is obviously still important- but I'm getting a first-hand view of why qualitative is so important, and um, I think getting to know other people's stories and understand that they have things to contribute and knowing where other people come from, and having a diverse range of interactions with people- I think like is like an important like, part of the project that I'm going to carry with me. [G7]

T(M): I wasn't thinking about that but when she mentioned it is actually true. You can get trained into thinking everything has to have numbers, you have to be able to measure anything. Just doing those interviews made me realize that, you know, there's more to people than just the categorizes and how you can operationalize everything that they do. There's still just the intangible that you might not be able to capture in quantitative data. So yeah. [G7]

L(F): I think it's a good way to get your foot in the door with a certain non-traditional type of research. Because lab research can sometimes seem daunting, and then that steers people away from all research in general. And this is a good way to kind of like change people's perspective on research, as like a method in and of itself. That it can still be done whether you're looking under microscopes or you know, conducting surveys, like there's more than one type and it can still be valid. [G2]

There were differences among the experimental groups as well. These differences varied based on *age*, *gender*, and *topic chosen*. Younger groups expressed more concerns about

meeting expectations for the program and often wanted to be informed whether they were “on track” or not. Groups with more female participants expressed more concern and attention to the democratic nature of decision-making, while groups with more male participants expressed less emotional concern for ensuring equality of voice within the group. Rather, groups with more male participants emphasized and discussed efficiency of decision-making as a goal and created ways to structure group governance practices to allow the group to move through decisions quickly. The emotional salience of the topic also differed among groups. The two groups with food-security related topics experienced less conflict over the research question and design plan those groups which chose more complex and emotionally-laden topics (i.e. self-identity and women’s empowerment).

Younger groups within the experimental groups expressed nervousness about not meeting expectations of the program.

S(F): Maybe some guidance is what we’re doing right? Like are we on the right track to be successful (mhmm)? I know a lot of learning experience is sometimes not being successful. But I think, some of the bumps could be smoothed out if we thought something was a good idea and someone with more experience of research in this area could have been maybe that won’t give you the best you know outcome or something. [G2]

D(F): Just an idea, but like once we decided our topic was food security to like, have a professor or someone who’s experienced in that topic to be like a mentor to our group. That we could ask them because they have experience in this specific topic. Like, you guys are good for in terms of research design, but then, asking specifically about food security to that person would be helpful. [G2]

Groups comprised of more upper classman expressed appreciation for the freedom inherent in the program.

B(M): I liked having you guys there as like, as a resource, was super helpful, like, with coming up with the research question we had you and [program staff] sit in on a meeting, like that, that was really really good. But um, having it more hands-off, like, I know a lot of, like, when we did the interviews in the other group and they said they wish you guys were more involved, but I think we thrived because you guys weren’t involved. I think that worked out really well for us. [G3]

Groups with more female participants discussed the desire to have consensus on ideas before making decisions and worked to accommodate different ideas.

C(F): I agree with that I also think because we had so many people and so many things going on that we kind of had to adopt a policy of whoever's at the meeting that's just kind of what we're going to do (hahah yeah!!) which is kind of unfortunate cuz the other people in our group like had other really good ideas and we can't really like get what they wanted to do since we couldn't all really meet up. So yeah. [G5]

N(F): I think one of our strengths is we are good at hearing each other out. I don't think there was a time where people were putting other people's ideas down or where certain people's ideas completely dominated the whole process or everything that we're doing. So, I think we are good at trying to listen to each other and incorporate each other's ideas into whatever it is that we were doing. [G7]

Groups with more male participants within them discussed particular group governance strategies that emphasized efficiency (making decisions with those in attendance and ascribing homework outside of meeting times).

D(F): I remember at the beginning we were trying to figure out like, our specific research question where I think at the training meeting and we like thought, oh ok maybe like everyone can like write a question and send it in if you can't make it to the meeting. But, then we eventually figured out that coordinating 10 people's different opinions just wasn't working. So, it basically was like whoever showed up at the meeting was able to push forward. [G2]

L(F): I feel like there is just this unspoken but understood rule that if you couldn't make it, like all of us obviously were very understanding about it, but then you as the person who couldn't make it also had to understand that we couldn't just wait for your ok on everything. And so, by sacrificing your attendance at the meeting you also like, sacrificed your say for that day. Obviously if you went through the meeting plans and had some like serious concern you could voice your opinion but that never really happened. [G2]

S(F): I think just because no, not one person was doing all the work, um, and there wasn't anyone who wasn't consistently showing up to meetings or not doing um, their part um, for the week. So, it was just a good even balance of the workload and I don't think anyone was too stressed out. It felt very fair in terms of how much work we were doing each week. [G3]

Groups with more emotionally complex research questions grappled for longer with framing and designing their research strategy.

L(F): And I think the structure came as we started, because I know we started off with a really long research question. And um I think that was still in the process where everyone wanted their idea to be heard. Their individual, like specific idea with the project. And once we kind of came together and narrowed it down and said we just want to focus on women empowerment um, I think it really helped us also solidify where we were going. [G7]

A(F): I think we found a theme and a topic we wanted to talk about really quickly but it took a long time for us to get specific about it I think. Um, we knew we wanted to do a video, we knew we wanted to kind of get kind of like testimonials like we wanted to actually like talk to people. Um, but I don't think we had a solid plan for exactly what that was going to look like until our meeting with you guys. [G5]

However, for the groups that chose food insecurity as a topic, there was less debate about how to word the research question.

A(M): Yeah, when we were working on the evaluation. I was talking to a girl who was, uh, her topic was kind of on like immigration and perspectives on um, I guess individuals from outside of the country, and so pretty much it seemed like their topic had more, more weight on the individuals who were involved in it had more personal experiences and emotions invested into the topic. Whereas for us I think we were just kind of looking at it from the outside in, so there wasn't a whole lot of tension around the topic. I think for us a lot of it was just learning it piece by piece together. So, there wasn't a whole lot of really grounds for conflict at all. And with that, I think we just kind of rode this easy-going, pretty mellow, group dynamic through the entirety of it. (laughs. Sounds of agreement). [G2]

Unique Themes by Individual Groups

Through the qualitative analysis, unique themes for each individual group emerged. The below discussion is a brief summary of aspects of each group's focus group discussion that were different than other groups.

Control Groups

Group 1

Group 1 discussed two key themes in their focus group that were unique when compared to other groups. The first was ***problem-solving through the research process***. This group specifically appreciated the ***group deliberation and discussion***. They expressed an openness and a value towards diversity of perspectives within the group and used their personal experiences at the university to engage deeply in conversations about the research topic. The group used terms such as "show down" and "devil's advocate" to describe the group's ability to engage in critical

conversation. This group did not acquiesce into a topic, but seriously engaged in the intellectual work of topic selection. This group also learned that while a larger topic was of interest they could *focus on building change through smaller questions*. The group realized that the nature of social issue-based research means that smaller questions can build up to create larger impact which is important to the social change process.

A(F): But being able to have so many um, dynamic people and interesting backgrounds it was easy for us to narrow it down, like people playing devil's advocate or people saying no that won't work because I've done this before. [G1]

W(M): Yeah, um, small questions matter. Cuz like we just start like, we start like big, and had these ambitious goals saying like alright, we want to answer the question to that! All in! You feeling me, like, we can say that, it's like, alright, before we can even attack all that, what is All In? What is the diversity? What they doing with the hallal meat? Why this and why that? (laughter) and sometimes it's like, sometimes we got like the small questions matter. We gotta like research questions that we may not necessarily find, we may not necessarily be the most passionate about, but they still help us get to our goal. So, like, small questions matter. [G1]

Group 1 also demonstrated deeper *sociopolitical development* in their reflections than other groups. In particular, they expressed feelings of having their eyes opened to the bureaucracy of university-based change. Specifically, they discussed the *university context for diversity* in which they learned how Penn State defines diversity and inclusion as well as how the university considers achievements towards those goals. The students expressed disappointment that a university can consider passive actions such as meetings to be accomplishments and worried that this way of perceiving achievements towards diversity may not be serving the students intended. Additionally, this group expressed more personal *commitment and desire for social change* both within the program, but also as part of their personal identity and future career interests.

B(M): I remember when we were looking at the All In achievements and um, that's when I first learned how a university defines an achievement. You know? An achievement can be a meeting, you know what I mean? Or proposed, and these are like achievements that are not like closed. These are just things that are ideas that have to surface and things, so it makes me think about um, just the bureaucracy behind like, trying to change policy here if we think that these are achievements then how long would it actually take to actually start doing things? So that's what I was thinking about. [G1]

T(F): Um. I think going back to, the beginning of this semester when I first turned in the application, I think the one thing that I said was that I would rather, the one thing I want to get out of this project, the reason I am applying is, I no longer want to complain about society's ills, whatever they are. Whether they are racism, police brutality, pollution, that's the one thing I no longer wanted to just complain about. And when I think about it now, what I learned about myself is, it is so much easier to be passionate about something, versus acting on that passion. Because it causes me to question in real life, what I get past Penn State University and I have the very same causes I care about. How far and how willing am I to go to ask the important questions, even when they're hard questions? And then act on the answers if those answers aren't satisfying. That's one thing I learned. And it's hard for me because I'm sitting here and thinking the reality of the consequences I face in college are not gonna be the same consequences if I'm gonna go up against someone in Congress who's trying to pass like a bogus law. And I'm asking why are you doing that? The consequences I will have to face if I choose the question that. That's the thing I'm learning, am I up for the consequences once I act on my passions? So. [G1]

Group 4

Group 4 was a group which started as a group of seven members but quickly became a group of only two active members. This unique situation led to specific reflections and discussions different than other groups. The two active students in this group talked about their interest in maintaining a *diversity of thought and social connection*, both of which they felt was missing in their smaller group of two. Specifically, they had a *desire for connection* in which they would be engaged in active discussion, diverse perspectives, and emotional connections within their group. They also appreciated the racial and ethnic diversity in the program. This group also reflected more deeply on *developing leadership* since the two remaining members took on leadership roles, with the one active member who was a senior the de facto leader for the project and the group. The two active participants reflected on the challenge they faced trying to step into leadership roles and their trepidation balancing their desire to be both assertive and kind. They realized their concerns were common to women in leadership and how this challenge was perhaps more prevalent in a group with all women. They also reflected on how disappointments and uncertainty led to empowerment as they learned to push through without group member involvement.

This group desired more of and appreciated diversity of thought and perspectives.

S(F): Then you always have someone to correct your, whatever you're doing wrong someone will counter it. and I think that's really important in research. If you are both just agreeing with each other then it's like, are we doing this research just to agree with each other? [G4]

S(F): I just want to add, it was a bit challenging because um, even like starting with the topic of when the first time we met as a group we sort of like just threw random topics out there. And then from that we collectively like, voted on one. To see which one would be the best one. But I feel like from the first group it was a lot more inclusive, cuz everyone was there. This is like the first time we met everyone. And everyone had something to add to it, and that's how the topic came about. [G4]

This group was also struck by the racial/ethnic diversity represented by Youth as Researchers participants overall. They described walking into the large all participant meeting at the very beginning of the program:

S(F): When I like entered I was like oh wow, diversity. I was so happy! I was like oh my gosh, I actually get to work with people of different backgrounds. [G4]

They also described what it was like to attend the training:

N(F): I feel like, honestly, since I have been at Penn State I have never been in a room that diverse, coming here for training. I'd never been in a room that diverse...But, being in the room for training, I just felt like I was back in my high school classroom. (S(F): Yeah). And yeah, and even the white people we did have in our like, make-up training class, they were just like...

S(F): Woke?

N(F): Yeah! They were just like open minded individuals who just knew, they just had something to like, they were definitely passionate, and had something to contribute to rather than people who are mostly in my classes that are just like I'm here for class, that's it. I have nothing else to say about anything else. [G4]

The two active participants also learned about their leadership styles and abilities through their research projects, and reflected on the unique challenges of female leadership.

S(F): I definitely learned that I can be a leader. Because I didn't think, had I presented the topic that we did I think I would have been more incentivized to be a leader, but because other people kind of fell out, or like the responsibility was kind of just on people that were communicating more, um, that sort of placed in me in a leadership position in the group to kind of get the whole group to work together. Um, I think I didn't expect myself doing that in the beginning at all. I'm not a person who would be open to a position like that really quickly, and I think just because, I

don't want to blame that like our failures made me a better leader, but somehow they helped, the challenges that we faced as a group kind of like compelled me to do better than I would have, had those challenges not been there. [G4]

N(F): I just wanted to really like lay it down because I want everyone to be involved. I think that was a stressful part. Like knowing when to like, where that boundary of being a leader and also being a student, and also being a friend. Where that kind of stops. [G4]

S(F): I just want to add that, even that stereotype is I think, hurtful in a group of all women. Because our group was all women. (Moderator: That's true, there were no men). So, then it was even more challenging because you're like oh how do you balance this because like, I don't know if you're like even in a group of like all women, as comfortable as I feel, I still don't want to play into that stereotype of like oh she's just being bitchy. [G4]

S(F): Even with like, conversation I think, I haven't had the conversation with guys. I'm constantly, uh uh uh, I want to add, I want to add, right? And it's like, I have to interject myself into it, even when it's a group of guys that I know. So, I think it's more, it's more like easy for me to be dominant and to say what I want when I'm talking to like, a group of guys, whereas for girls it's like, we're all sort of listening, and it's like oh, then I don't want to be like. You're being like overly dominant. [G4]

Group 6

Group 6 chose the topic of awareness of recycling sustainability programs on Penn State's campus. This group struggled in forming and carrying out leadership-related tasks. This group reflected on their *group relationship*. In particular, they discussed how their group relationship was marked by confusion regarding selection of their topic and roles each member played. The group also struggled to maintain meetings and communication and had a strong desire for group consensus before making decisions. This group also reflected on *leadership development and self-awareness*. In particular, the two women who played a heavier leadership role within their group remark about how this taught them about their own limitations. They described the nature of their group relationship.

O(F): I don't think so. I feel like it was just because our group was so big. It was difficult to get things done. I think that's that was our problem, I guess. Because even from all the way at the beginning I think it was difficult because it took us how long to pick one topic. I don't know if that's bad but that took us a while to pick our topic. And after that, we still had issues with like getting everyone on the same page at the same time and stuff like that, so I don't know. [G6]

L(F): Just like what you kind of said just reminded me it's kind of a trust thing. Where like, you trust yourself to do like, what you expect, but you don't really trust other people to do things the way, the quality, or the way that you want them to be done, that's not to say that you don't respect them, but you don't know them or if they're gonna do it. Yea. [G6]

O(F): I feel like we already talked about the meeting, of getting to be in the same place at the same time was also a big challenge for us. Because people would say they are showing up and then five minutes before time they wouldn't show up or something would come up and they would miss like the whole hour that we spent together. And then the next meeting they would be behind and they would have different opinions. And we would want to make sure their opinions were heard as well. And stuff. So, we had to put everything they were thinking into consideration. And that would put us back as well. [G6]

F(F): I think regarding role assignment. That was definitely one of our biggest challenges as well, I think. Because some of us would tackle a task and then someone else would also sub in, or they would also jump in and do the same thing at the same time. You know when we're like editing the files and everyone would jump in and everything and we got confused on what we're doing. So that was confusing as well. We didn't really assign like clear roles I think. [G6]

They also reflected upon what they learned about their personal leadership styles.

L(F): I have learned a lot about myself. Ok. I'll make it short. One is that I think of myself as a good leader, but I realize I am really bad at expressing, not dismay, but like disagreement, in a non-offensive way. So, I was trying to practice that. That sounds like I'm a crazy person, which I'm not. But just, when someone says something that in my head and I think that's off the wall wild what are you saying, I need to find better ways to answer that and express myself not in a condescending way. I might have already said this, I think of myself as a good leader, but sometimes it just comes across wrong and you're just not a good leader of every group and you just can't achieve what you want to achieve no matter what you try. [G6]

A(F): But what I learned about myself, just kind of I already knew I like to get things done and being on task and on time. But I think just because other people in group don't have those same qualities, I just went into overdrive sometimes, and just really tried to get things done, and kind of left people behind while trying to get things done. Like I said earlier I said I didn't really feel like I wanted to catch these people up because they weren't trying to be caught up I just wanted to keep going. The whole project I felt we were behind, I constantly felt we were behind, and that really irked me. So, I think patience as well was something I learned about myself being in this group, that I have to be more patient with people. [G6]

F(F): I personally describe myself as a servant leader. But, in this case, like during our first meeting, for some reason I just decided I was just a leader for the day. I was conducting the conversation and just leading everybody's opinions and you know, just asking around and for some reason just leading. Which is not necessarily what I do. I don't necessarily like, take the lead first hand. I usually just go with the flow. But yeah, that's just what I learned. [G6]

Experimental Groups

Group 2

Group 2 selected food insecurity on campus as their topic. They originally chose food insecurity within the entire county, but after roadblocks to accessing data and local nonprofits, they chose to focus only on Penn State. This group was younger than other groups and expressed conflicted feelings about the hands-off approach of the program. In particular, they reflected upon their ***relationship to adults*** through the program as having concern towards *meeting adult expectations* while simultaneously being happy to have *freedom from the adult gaze*. Members of this group had expressions of anxiety and a wish for adult guidance in explicit ways to ensure they did not fail to fulfill program expectations, and gave ideas for how this might occur. At the same time, they also expressed positive emotions towards the experience of having freedom and safety to express oneself and try new things without pressure, fear, or judgement of adults (namely professors). They also learned about ***the nature of food insecurity and how it is addressed***, in particular that there is a lack of data-driven decision making regarding food insecurity and limited university support. They also learned about factors which influence food insecurity as well as its prevalence.

Some participants in this group felt that they would have liked more guidance to ensure they were meeting program expectations.

D(F): Just an idea, but like once we decided our topic was food security to like, have a professor or someone who's experienced in that topic to be like a mentor to our group. That we could ask them because they have experience in this specific topic. Like, you guys are good for in terms of research design, but then, asking specifically about food security to that person would be helpful. [G2]

S(F): Maybe some guidance is what we're doing right? Like are we on the right track to be successful (mhhh)? I know a lot of learning experience is sometimes not being successful. But I think, some of the bumps could be smoothed out if we thought something was a good idea and someone with more experience of research in this area could have been maybe that won't give you the best you know outcome or something. [G2]

Others however, felt that the freedom given by the program allowed them to engage in activities without judgement or control from professors.

N(M): Yeah, and I think um, for me it was mainly getting research experience with uh, not pressure on you. Cuz like, when you do research in a classroom you have to make sure you do something good enough to get a good grade. This felt a way more laid back to learn experience to get these research skills without having to worry about if it's gonna affect you in the long run. If you don't, if you have bumps in the road on the way there. [G2]

L(F): I also felt like I was more able and willing to speak up. Because if I'm going to be under a professor I would be tentative about anything I had to say just because they already have the knowledge and expertise and if I make the wrong move, wrong step, there's a whole weight on me being associated with him or maybe be like losing my position with that professor. Whereas like this it's ok to learn and it's ok to make mistakes because that's not the point, is to be able to explore during this research opportunity. Whereas I mean with professors it's like no mistakes, you know? [G2]

E(F): I was going to say yeah, it was really nice in my opinion not have that sort of, like, um actual class feeling where you have to, if you mess up then you're done, or like, you're, it's, it was really nice to just be sort of relaxed about how this is a learning process and it doesn't have to be perfect. Like I never, there was an interesting point where we just were like ok, we're just going to send the survey out, it's going to be what it's going to be, and it's like, it's going to be fine. I like, in every other incidence in an academic setting I would have been like, oh my God, I can't do this, this isn't right, but it was really nice just to be like this is what we're going to do and it's fine. [G2]

This group also reflected upon some of the constraints within the organizations they were investigating which dealt with food insecurity on campus.

A(M): Yeah, I guess going off of what S(F) said. I went and interviewed someone from Lion's Pantry and it's like obviously you recognize a need for this organization, was that based off any data or information? And she's like no not at all, we're actually wondering whether we could get some information that you guys collected (laughter!). And I was like we just kind of sent surveys to Facebook groups. I don't know if that's the kind of quantitative research you're going to use, but yeah, just surprised me that information we assumed was out there wasn't there. [G2]

Group 3

Group 3 also chose food insecurity on campus. They had a uniquely *positive attitude towards the hands-off approach* of the program and believe that it *built resilience, independence and pride* in their work. They also believed in and took advantage of the *program structure and*

resources and had much praise about the efficacy of the training they received. They also learned about the *social nature of food insecurity* in particular the *university role in addressing food insecurity* as well as how this topic may be a venue for *fostering social change and activism* among the student population.

This group viewed the hands-off approach of the program positively.

D(M): I think that the hands-off approach really made it feel like our project rather than just something we're told to do. So, it makes me like actually excited to see the finished product when we're done with it. [G3]

A(F): I mean, to go off of that I think he's right. With, it was hard initially, and there was some times that we, like, hit a wall. But I think, like, all in all, it was actually beneficial about how hands-off you guys were just because we, we had to take it on and move through every single wall we hit. And we had to work together, I thought that it was a really cool way for us to learn and work together. [G3]

B(M): I liked having you guys there as like, as a resource, was super helpful, like, with coming up with the research question we had you and [program volunteer] sit in on a meeting, like that, that was really really good. But um, having it more hands-off, like, I know a lot of, like, when we did the interviews in the other group and they said they wish you guys were more involved, but I think we thrived because you guys weren't involved. I think that worked out really well for us. [G3]

J(M): I think I guess, it never felt too overwhelming too, because it's not like we couldn't come to you, if we had like, an issue. [G3]

In particular, they felt the initial training their group received was a strong resource.

B(M): I think that first research day was awesome. I thought we learned a lot from that and I thought our group really formed together really well that day because we did it together. [G3]

B(M): Yeah yeah. I think that was one of the best resources we could have. That day was so useful to our group I think as a whole (sounds of agreement). [G3]

D(M): Just to build a group dynamic too. That's how I learned everybody's name. [G3]

C(F): It was really informative and I liked the style of doing it. I think it, kind of, got the juices flowing. We could be more dynamic as a group. [G3]

B(M): And I feel like it definitely got us on the right track with figuring out our question and what we were going to do with research. [G3]

This group learned about systemic issues related to their topic of food insecurity and how the university and surrounding community addresses, or fails to address, this issue.

A(F): I was surprised to learn about the um systems that were all going on. I didn't know there was project CARE, that there was Lion's Pantry. Didn't know any of that. I thought it was very interesting there was programs on campus that I didn't know about. [G3]

K(F): Yeah. And I know I've heard before it's interesting about Lion's Pantry. They got a large donation last year from the Senior class gift. But we're one of the few large universities that it's then even a student-run program, like a food bank. Most food pantries are like, run through the school and like, staffed. So, our ability to even like, keep on going if it's only student volunteers and things like that. It's just so surprising. [G3]

E(M): Well, specifically for food insecurity. The fact that Lion's Pantry is so understaffed, and that Ava Java is mainly done from resources outside the university and even when you talk about project CARE that it is again, student initiatives that are um, taken up. So, like student initiatives are the reason that food insecurity is treated on campus. So, specifically the lack of resources for food insecurity on campus, but I'm sure that there are other issues that other people um, researching other issues on Penn State's campus will probably come across some more things, which leads to a tangible um, a tangible outlet for student activism on campus. [G3]

B(M): I think that my main take away is how important of an issue it is. I never really thought about it from that perspective. But from doing our survey and seeing how few people knew about food insecurity, um, it it I don't know, I feel like that talking more that if you want to change something it really is important to like show everybody that it's an issue first, otherwise nothing's going change like you can't just like rush in headstrong and try to start to tackle the problem before you look at how it exists. [G3]

Group 5

Group 5 chose the topic of intersectionality and how Penn State's campus culture fosters or hinders the expression of various identities. This group reflected upon how they *learned about the topic* through personal reflection and listening to others' perspectives on the topic through their interviews.

D(M): Um, I mean definitely, when we discussed the topics, that like improved the learning, like about the topic more cuz like, we all had like our individual viewpoints about it. We've all had experience with it, but like discussing it and hearing what other people have to say and seeing like, you know some commonalities and some differences, but still kind of like the same topic, that was definitely kind of like a learning experience I would say. Like the discussion was nice. [G5]

E(F): I guess going off of that too, it's not that its necessarily new stuff I was thinking about, like I said we probably had these ideas beforehand which is why we came together as a group. But it's more like based on the nature of wanting to hear people's stories. You're inherently going to have your ideas expanded based on the stories that you hear because they are all really unique. So even if it's not getting some radical new ideas it's just really really cool to be able to hear different people's perspectives and their experiences, and then have I think the ideas that we already had solidified. [G5]

Group 7

Group 7 chose the topic of women's empowerment and how it is manifested and understood by Penn State female students. This group expressed *surprise at working with diverse students*. In particular, older group members were surprised to work with freshmen and those in the honors college. This group also expressed newfound *awareness and personal reflection* regarding their topic as they learned that disempowerment can be subtle and empowerment can be defined in many ways. Finally, they also *learned about research*, particularly the importance of social science research and qualitative forms of collecting data.

Older members of this group were surprised to work with younger undergraduate students and students from the honors college.

A(F): I was pretty surprised about the amount of Schreyer kids too in there because I am non-Schreyers and I remember at one time at a group meeting a bunch of the group talking about something happening in Schreyers, and I was sitting there like what? Like ok. I was shocked by the amount of people who are in Schreyers. Um, and I was also a little bit caught off guard of the amount of like freshmen. Not that there were so many freshmen, but like, I had expected more upper classmen too. Not that it's a bad thing like there's there are young people, I think it's good that we get to work with people of different age as and experiences, but that did catch me off guard. [G7]

T(M): I definitely have to agree with that. I was definitely taken aback. But, just like she said I don't think it was a bad thing it was just something like I actually felt bad, like why was I (A(F)-right!) why can't freshmen be part of this too? It's not just for seniors. I just had this selfish idea I thought it would be like econ, political science, all seniors, very quantitative, rigorous kind of stuff. [G7]

S(F): I remember I was kind of taken aback with the program as a whole how many Schreyers, and freshmen, and majors based on agriculture. Like, there's two groups doing food security. Um, but I have to say in our group the freshmen definitely caught me off guard with their knowledgeable and really smart, so. They had a lot to add to the group. [G7]

This group discussed how their awareness and personal reflection on the topic increased through the research process.

T(M): I think the biggest thing that I learned was um that even where women are empowered it could be restricted empowerment. They might say you're empowered or you're now able to do

this but you have to do it in a certain way or else we'll withdraw those privileges which was kind of mind blowing to me but it also makes sense. [G7]

A(F): And then the other thing I was going to say was kind of like more with like what we found from like, interviews or just like, research. Kind of going back to that conversation about like, privilege. I had always known that I am privileged in some ways, not so privileged in other ways, but I think it put it more in perspective. Kind of gave me more concrete, a more concrete look into the ways in which I might be privileged and the ways that I might not. Um, I think like kind of what we're touching on before is kind of like intersectionality and how that affects things. So, I think there was a lot, kind of like a lot we learned from the information we've gathered. That we are gathering. And kind of what we hope to do with this project moving forward I think there's a lot to kind of like reflect on and how that can affect individuals. [G7]

T(M): I mean, it, for me as an international student it definitely made me think about my assumptions about the lives women lead in the US. Because for me it was like ok, women in the US are basically, coming into the US it was like, they might be, a bit (pause) I gotta be careful here (pause, laughter), they might not be on the same level as men in the US, but then—

A(F): What do you mean the same level?

T(M) Ok, like for example.

A(F): Academically, economically?

T(M): Um, like the pay gap.

A(F): Oh, ok.

L(F): Like privilege?

T(M): Yeah, ok, privilege. They might not be the same level but it's definitely not as bad as in developing countries. And while I still think it's that way, I now understand that it's not nearly as good as I thought it was here for women. There's still many systematic ways in which women might be suppressed. You know? (murmurs of agreement). [G7]

Members of this group also discussed aspects about social science research which they learned about during the course of the program.

S(F): Definitely going off that, I would definitely tell them to join. But going off with what L(F) said with the different majors, there's social issues in almost any field, like you can do like, this could easily do a public health issue. Um, you could do like technology and access to that. So, there's definitely a lot of ways that different majors can be involved in social research. [G7]

A(F): Um, one more thing. I just think it's also important, I am also taking away from this is that it's important to get to know each other's stories. From the people we're interviewing and getting to know. I think it's important that, this kind of goes along with the fact that this is qualitative research instead of quantitative- quantitative is obviously still important- but I'm getting a first-hand view of why qualitative is so important, and um, I think getting to know other people's stories and understand that they have things to contribute and knowing where other people come from, and having a diverse range of interactions with people- I think like is like an important like, part of the project that I'm going to carry with me. [G7]

T(M): I wasn't thinking about that but when she mentioned it is actually true. You can get trained into thinking everything has to have numbers, you have to be able to measure anything. Just doing those interviews made me realize that, you know, there's more to people than just the

categorizes and how you can operationalize everything that they do. There's still just the intangible that you might not be able to capture in quantitative data. So yeah. [G7]

Summary of Qualitative Findings

Overall, participants in the Youth as Researchers program took advantage of what they perceived of as an unusual university opportunity that allowed them to engage socially and intellectually in issues of importance to them. Participants were appreciative that they were allowed to work in a group with other students and allowed to choose their own topics of interests in a setting which was not tied to their grades. Their participation in the program led to reflections on their own leadership and personality traits as well as opened their eyes about the various topics in which they explored, in particular through exposing them to ways that community and university organizations address or do not address their topics of interest. Participants had mixed emotions about the hands-off nature of the program and felt this allowed for them to have ownership and responsibility while simultaneously wishing for more structure and guidance to ensure their group projects success. The group nature of the program meant that participants reflected on how to work within a group and manage group dynamics, the most challenging aspect of this for many groups was managing logistics and making efficient decisions. Participants also reflected on their own development of personal responsibility and internal motivation, often frankly reflecting on how they learned the limits of theirs and group members' motivation throughout the program.

Control groups had unique themes not found in the experimental groups. They struggled more to solve logistical problems, in particular managing the motivation and engagement of all group members, maintaining regular meetings, and having continuous communication. Their self-reflections incorporated more reflections on lessons learned from these challenges, in particular what they would do differently should they participate again, acknowledge personal

and group shortcomings, and expressed surprise about aspects of research they did not know about before engaging in the program. Finally, there were themes which differed among the control groups. Level of openness to group conversation differed among groups with some having more comfort with open debate than others. Other groups in particular desired democratic decision making and wanted to reach consensus before moving onto a decision. The level of confidence each group expressed towards research also differed depending on individuals' level of experience with research.

Experimental groups also had unique themes which differed from the control groups. They expressed a deeper connection to the program through the evaluation activities and thought of themselves as leaving a legacy behind through helping the program improve. Moreover, they found the scheduled evaluation activities as chances to reconnect with their motivation for joining the program as well as engaging with their group mates. They expressed deeper reflection and learning than the control group specifically about the nature of their group dynamics, reflection on their personal learning, and technical aspects of research skill building. Groups differed somewhat depending on their age, gender dynamics, and topic chosen. Younger groups were more concerned about meeting adult expectations throughout the program, groups with more men focused on efficiency of decision-making more than female-dominated groups, which were more focused on consensus in decision-making. Finally, the emotional salience and complexity of the research topic chosen also meant that groups spent different amounts of time grappling with the research question and design than the two groups which chose the topic of food insecurity on campus.

Quantitative Findings

This study also used a pre/posttest survey to measure participants' changes over 10 variables. Each of these 10 variables take place at individual, relational, or community levels and can be seen outlined below. The descriptions of each of these variables are discussed in Chapter 4. Each variable is a summated index. All but two scales are previously validated and tested scales. Two scales were created by the researcher (*research self-efficacy* and *ability to influence others*). All scales showed acceptable reliability with Cronbach's alpha ranging from $\alpha = .744$ to $\alpha = .843$ among all scales, indicating that the variability within each scale is such that treating the summation of items as a single variable is reasonable. Given that the purpose of the study is to examine indicative evidence for broad changes among participants in the experiment and control groups, examination of overall variables (rather than individual survey items) was undertaken. Table 13 displays the reliabilities for each scale among all Youth as Researchers participants. The scale measuring critical consciousness is measured as a Guttman style summative index and therefore, no reliabilities were calculated.

Table 13: Reliabilities of Summated Indices in Survey

Socioecological level	Variable	N	α	# items
Individual	Research Self-Efficacy	62	.77	8
Individual	Civic Engagement Self-Efficacy	60	.84	9
Individual	Empathy	61	.77	11
Relational	Perceived Social Support among Youth	63	.76	4
Relational	Perceived Social Support among Adults	63	.74	4
Relational	Ability to Influence Others	61	.75	7
Community	Community Attachment	62	.81	11
Community	Youth Participation in Civic Organizations	63	.78	5
Community	Youth Participation in Community Organizations	63	.80	5

The purpose of the quantitative analysis was not to determine statistical significance of findings, but to use this diversity of variables to create discrete categories among variables in order to determine which groups had higher versus modest change before and after the program, and whether this differed depending on the groups' status as a control or experimental group. At the end of the analysis stages, variables were collapsed to create three discrete categories which represent three socioecological levels: Individual; Relational; and Community/Organizational. The procedures used to explore and analyze the quantitative data are described below and took place in 6 stages:

Stage 1: Creation of all indexed variables. Creation of all socio-ecological level variables. Descriptive statistics gathered on summated scales, including reliabilities.

Stage 2: Differences in the mean (post-pre) among each individual variable for all Youth as Researchers *participants* ($n = 66$).

Stage 3: Differences in the mean (post-pre) among each individual variable for all seven individual Youth as Researchers *groups* ($i = 7$).

Stage 4: Differences in the mean (post-pre) among each individual variable for the two key study groups: the experimental and control group ($k = 2$).

Stage 5: Differences in the mean (post-pre) among all socio-ecological variables among all Youth as Researchers *participants* ($n = 66$).

Stage 6: Differences in the mean (post-pre) among all socio-ecological variables for the two key study groupings: the experimental and control group ($k = 2$).

Stage 1 Results

The results from stage one show that on most variables the average responses among all Youth as Researcher participants were higher than the theoretical midpoint, indicating that participants had high levels of these traits prior to participation in the program. The one exception to this is the variable critical consciousness, in which participants were slightly below

the theoretical midpoint both before and after participation in the program (see Table 14). Table 13 displays the reliabilities for each summated index and the number of items comprising each index. All variables, except for critical consciousness, were measured on a 5-point Likert agreement style response scale. The critical consciousness index is a Guttman style scale in which respondents were asked to check among four items across nine separate subscales indicating whether they agreed with a statement or not. The range for each subscale was from 0 (respondent agreed with no statements) to 4 (respondent agreed with the most “highly critically conscious” item). These nine subscales were the summated to create the overall critical consciousness measure.

Table 14: Descriptive Statistics of Survey Variables

Variable Name	<i>N</i>	Pretest (<i>M</i>)	Posttest (<i>M</i>)	Theoretical Range	Theoretical Midpoint
Research Self-Efficacy	52	32.8	34.8	[5, 40]	12.5
Civic Engagement Self-Efficacy	54	36.8	38.7	[9, 45]	27
Critical Consciousness	58	15.9	17.1	[0, 36]	18
Empathy	55	44.7	46.0	[11, 55]	33
Social Support- Youth	58	17.1	17.6	[4, 20]	12
Social Support- Adults	58	17.4	17.4	[4, 20]	12
Ability to Influence Others	57	27.5	28.7	[7, 35]	21
Community Attachment	56	38.9	39.2	[11, 55]	33
Participation- Civic	58	22.5	23.2	[5, 25]	15
Participation- Community	58	22.9	23.3	[5, 25]	15

Stage 2 Results

The stage two results indicate that all variables increased from pre to posttest among all Youth as Researchers participants (see Table 15). Moreover, these changes were statistically

significant for measures of self-efficacy, empathy, ability to influence others, social support among other youth, and youth participation in civic organizations.

Table 15: Stage 2 Results- Mean Change among all Participants and Variables

Variable Name	Mean Change (post-pre)	SD	N	P-value
Research Self-Efficacy	2.06	3.68	52	.00*
Civic Engagement Self-Efficacy	1.85	4.26	54	.00*
Critical Consciousness	.69	3.19	58	.11
Empathy	1.36	3.57	55	.01*
Social Support- Youth	.57	1.98	58	.03*
Social Support- Adults	.07	2.59	58	.84
Ability to Influence Others	1.16	3.33	57	.01*
Community Attachment	.25	5.73	56	.75
Participation- Civic	.67	2.07	58	.02*
Participation- Community	.43	2.28	58	.16

Note: ** = $p \leq .00$; * = $p \leq .01$

Stage 3 Results

Stage 3 results can be seen in detail in Appendix H. Overall, there was variation among all seven groups regarding size of the mean difference from pre-posttest. Among the control groups, Group 1 had the lowest changes including primarily negative change scores from pre-posttest, indicating that their skills, perceptions, and confidence across the variables decreased at the conclusion of the program. Among the experimental groups, Group 3 had the highest consistency in positive change across all variables.

Stage 4 Results

Stage 4 results demonstrate that across all 10 variables, the experimental groups collectively had higher mean differences than the control groups on all variables except for perceptions of social support from adults (see Table 16 & 17). Graphical display of these changes can be seen in Figures 7-9.

Table 16: Stage 4 Results- Mean Change among Experimental Groups all Variables

Variable	Mean Change (post-pre)	SD	N
Research Self-Efficacy	2.88	3.39	34
Civic Engagement Self-Efficacy	2.28	4.17	36
Critical Consciousness	.87	2.93	38
Empathy	1.50	3.68	36
Social Support- Youth	.68	2.03	38
Social Support- Adults	.05	2.68	38
Ability to Influence Others	1.29	2.99	38
Community Attachment	.89	4.83	37
Participation- Civic	.82	2.12	38
Participation- Community	.76	2.10	38

Table 17: Stage 4 Results- Mean Change among Control Groups all Variables

Variable	Mean Change (post-pre)	SD	N
Research Self-Efficacy	.50	3.79	18
Civic Engagement Self-Efficacy	1.0	4.43	18
Critical Consciousness	.35	3.69	20
Empathy	1.11	3.41	19
Social Support- Youth	.35	1.90	20
Social Support- Adults	.10	2.47	20
Ability to Influence Others	.90	4.00	19
Community Attachment	-1.00	7.17	19
Participation- Civic	.40	2.01	20
Participation- Community	-.20	2.53	20

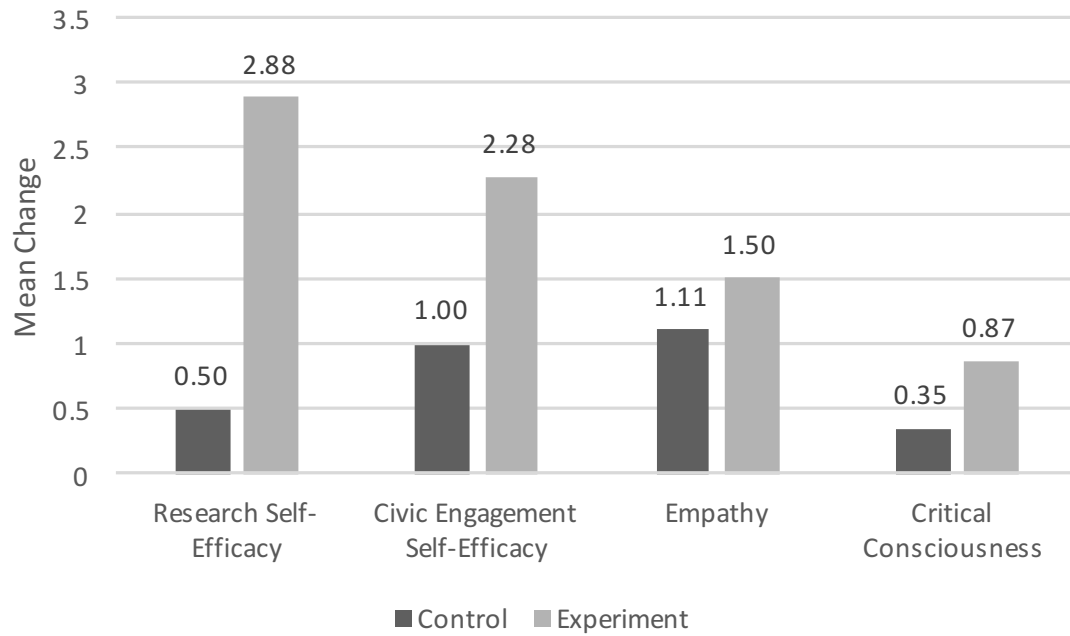


Figure 7: Mean Changes among Individual-level Variables

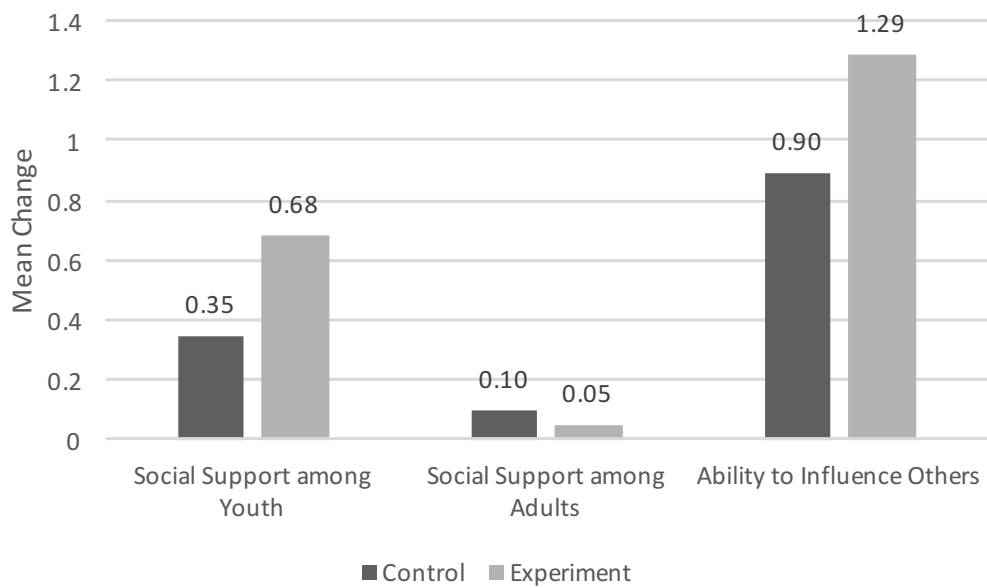


Figure 8: Mean Changes among Relational-level Variables

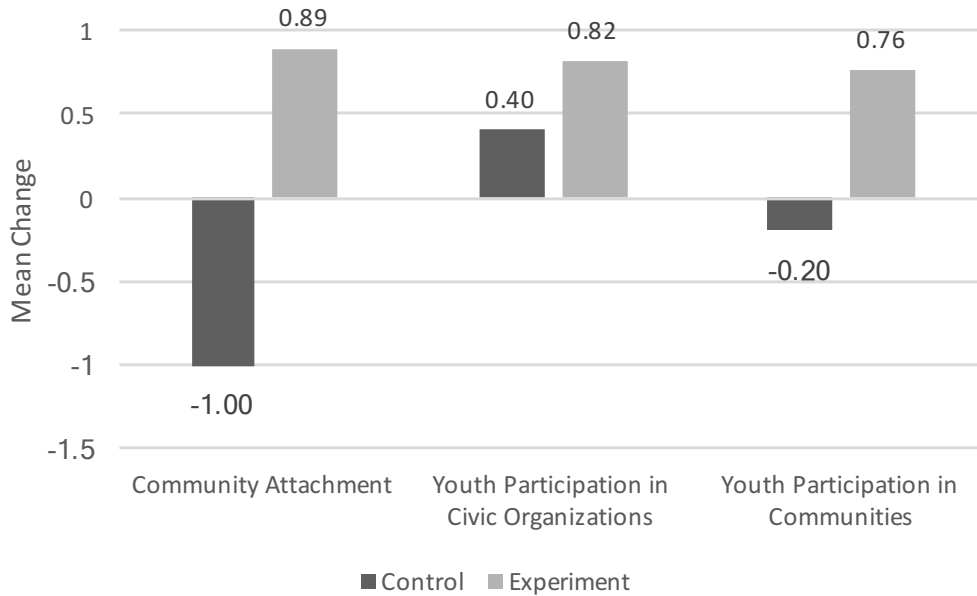


Figure 9: Mean Changes among Community-level Variables

Stage 5 Results

Stage 5 results indicate that among all Youth as Researchers participants, individual and relational variables had higher change than those related to community, and these changes are statistically significant (Table 18).

Table 18: Stage 5 Results- Mean Change among all Participants

Variable	Mean Change (post-pre)	SD	N	P-value
Individual	5.20	1.33	45	.00**
Relational	1.81	.85	57	.04*
Community	1.43	1.08	56	.19

Note: ** = $p \leq .00$; * = $p \leq .01$

Stage 6 Results

Stage 6 results show that once the original 10 variables were collapsed into three key socioecological variables (individual, relational, and community), the mean differences among

the experimental group were higher than the control group (Table 19 & 20). For the experimental group, the individual and community level changes were statistically significant. A graphical display of these mean differences can be seen in Figure 10. Statistical significance was not calculated for control groups given the limited number of participants.

Table 19: Stage 6 Results- Mean Change among Experimental Group

Variable	Mean Change (post-pre)	SD	N	P-value
Individual	6.20	6.91	30	.000**
Relational	2.03	6.49	38	.062
Community	2.57	6.78	37	.027*

Note: ** = $p \leq .00$; * = $p \leq .01$

Table 20: Stage 6 Results- Mean Change among Control Group

Variable	Mean Change (post-pre)	SD	N
Individual	3.20	11.96	15
Relational	1.37	6.48	19
Community	-.79	10.06	19

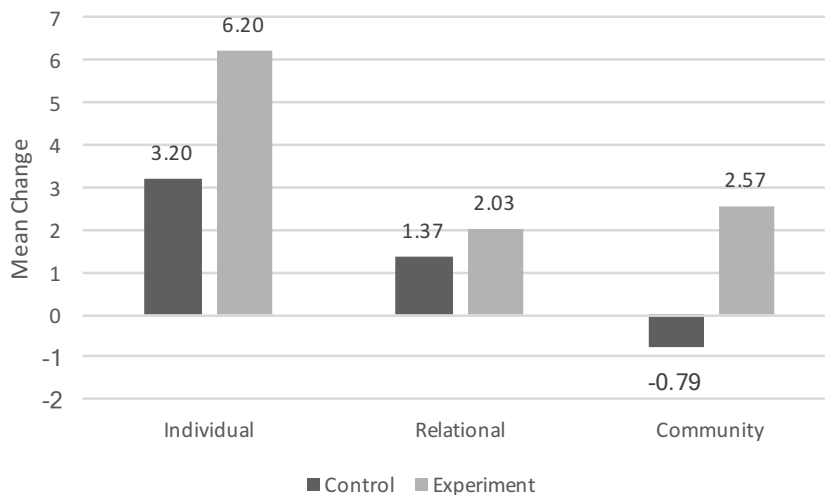


Figure 10: Mean Differences among Experimental v Control Group

Summary of Quantitative Findings

Regarding the overall program, quantitative findings show that all participants scored highly on all variables at the start of the program and that participants as a whole increased on each variable from before their involvement in the program to after their involvement. These increases were highest for measures of self-efficacy and empathy. When variables were collapsed into their respective socioecological categories, changes in individual and relational level variables were statistically significant.

Regarding differences between experimental and control groups, experimental groups had higher change on all variables except for social support among adults. The largest gaps in pre/posttest differences in variables among experimental and control groups were for research self-efficacy and community attachment. When variables were collapsed into their respective socioecological categories, the experimental participants had higher mean change differences among all three categories. The experimental group had a nearly two times higher mean change for the individual-level category, a 1.5 times higher mean change for the relational-level category, and a nearly three times higher mean change for the community-level category.

CHAPTER 6

CONCLUSIONS

Introduction

The purpose of this study was to ascertain whether there is any indicative evidence that participation in an evaluation had additional effects on the participants in the Youth as Researchers program. This chapter explores the implications of the empirical findings reported in Chapter 5 and how these findings tie to previous literature, theory development, and practice. In keeping with the socioecological structure of this study, conclusions will be reported at three levels: the individual, relational, and community/organizational level. Then implications for theory and practice will be presented.

A special note should be made that throughout this study the terms youth and young adults have been used interchangeably given the population used within this study were those who fall within these two important developmental stages- adolescence and emerging adulthood. International use of the word youth varies and can expand as wide as 12-35 years old with much of the variation in usage due to cultural nuances in perceptions of when adulthood begins. Much of the literature to date has focused on youth falling within the under 18 years old teenage years, while this study incorporated young adults in their late teens to very early 20s (18-22 years old was the age span of the vast majority of participants). While this distinction does not change the findings or conclusions of the study, it is worth mentioning for both clarity and for extending research using youth at the upper end of the age spectrum in research and evaluation.

Individual Changes

The results of this study indicate there is strong evidence to support that participation in the Youth as Researchers program increased participants' individual-level outcomes. In particular, it increased participants' self-efficacy, personal awareness, and knowledge of their chosen topic. When all participants to the program were examined together, quantitative findings found statistical significance in the mean differences before and after the program. Moreover, these findings were true among three of the four individual-level variables (research self-efficacy, civic engagement self-efficacy, and empathy) as well as the singular collapsed socioecological category.

Qualitative findings support these quantitative results in how participants describe their desire to join the program and their personal reflections and learning during the program. All groups described the uniqueness of the opportunity the program provided since it allowed for intellectual and creative freedom in a way not typically found at a university. It provided them a chance to gather professional experience in a non-threatening way since the program was not tied to their coursework nor monitored or led by a professor. Furthermore, the unique nature of the social-justice research orientation of the program allowed them the chance to practice incorporating two aspects of their identity at the same time- their academic knowledge with their personal values.

Reflections upon one's personal skills and limitations were prevalent in all groups. The hands-off nature of the program challenged participants to grapple with their personal drive and commitments and to rely upon their internal motivation rather than the external rewards/punishment of classwork and grading. Individuals across YaR groups reflected on the roles they played within their groups, including those that stepped into leadership positions and

how they navigated these roles. Others reflected on ways they would hold themselves more accountable if they were to engage in the program again and expressed their frustration upon realizing they were not as independently driven as they had originally thought at the beginning of the program.

All groups also demonstrated learning about their topic and research itself. Groups discussed how the process of engaging deeply in a topic of their choice caused their assumptions about their topic to be challenged and their knowledge of the topic to be stretched. Groups learned about the institutional and organizational barriers to addressing their topic; most groups learned about the culture of Penn State and the resources the university attributes, or fails to attribute, towards their topics. Groups also learned about the complexity of the social challenges they were exploring and the multiplicity of views on a single topic can lead to various ways of defining terms such as empowerment, identity, and diversity. Some groups also reflected upon the knowledge they gathered about their topic as a first step towards involving other students to engage in the topic, whether through prevention, discussion, or attempting to change university policy, a step in becoming civically engaged. Groups who utilized interviews in particular reflected on the power of individual stories and how these stories both surprised them and deepened their interest in their topic. Some discussed their ability to understand a situation from another's point of view as a result of gathering data from their peers, whether through interviews or surveys. By engaging in research, groups improved their research skills by practicing interviews, designing surveys, and compiling data into a way that could be presented to others. Participants expressed their confidence in these skills as a result of having tackled them on their own.

When examining the differences in individual-level changes by experimental and control groups, there is strong evidence that the experimental groups had higher individual changes after the program ended than control groups. Experimental groups discussed the program evaluation as making them feel more connected to the program, supporting their group logistical challenges, and infusing a sense of accountability and motivation into their experience with the program. Moreover, the activities participants engaged in during the evaluation were research-related (creating research questions and collecting interview data) giving them additional research practice. Control groups did not have as positive individual changes as the experimental groups. This is possibility explained by their disconnect from utilizing program resources and the struggle of group dynamics which may have led to more sober reflections on their personal skillsets.

Interpretation of Individual-Level Outcomes

It is not surprising that participation in the Youth as Researchers program increased all participants' sense of research self-efficacy. By engaging in the program, participants were expressing an interest in exploring and stretching their research skills and most expressed an interest in exposure to research as a key driver for joining the program. Participants also described how this opportunity allowed them a chance to explore research and topics of interest to them in a nonthreatening, but still challenging manner. The challenges they experienced and the student-driven nature of the program led to reflections and development of responsibility, internal motivation, and drive. The unique nature of the social-justice orientation of the program allowed students to explore both their identity as educated researchers and civically-minded young adults at the same time. Incorporating diverse areas of one's life into a single, coherent

identity is a critical component of the developmental tasks for adolescence and emerging adulthood. The experiential nature of the program also developed participants practical research skills as they engaged in a variety of research design, data collection, and analysis activities.

Participation in the Youth as Researchers program also increased all participants' sense of civic engagement self-efficacy. This is also not surprising as many activities within the civic engagement self-efficacy scale have to do with pragmatic organizing tasks, such as communicating with new people and running meetings. Some groups reflected upon how the data they gathered about their topics could be used to increase student voice, activism, and push for changes at the university or community level. While the time constraints of this study mean these potential long-term outcomes cannot be measured yet, the fact that participants were reflecting upon this is an important aspect of civic engagement self-efficacy itself since self-efficacy is the feeling of confidence one has that they are able to carry out a task, rather than a measure of conducting that task itself.

Overall, participants also increased their levels of empathy. This may be partially explained by the act of collecting data and viewpoints from other people about their topics. Several groups used face-to-face interviews as a primary data collection method, and others used surveys. Those who participated in interviews discussed the power of hearing individual stories and being challenged about their notion of what various contested social terms mean for different audiences- such as diversity, identity, and empowerment. Those who developed survey instruments talked about learning how to put themselves in the shoes of the respondent and make sure the wording of survey questions was non-offensive, likely to elicit unbiased response, and clear and easy to understand. The group nature of the research itself also requires that groups learn from, listen to, and understand the viewpoints of their fellow group mates.

There is weak evidence to show that this program increased respondents' scores of critical consciousness. While critical consciousness was reflected upon in the focus groups, there is little quantitative evidence to indicate that the program led to increased scores on this variable. Moreover, participants were higher than the theoretical midpoint on self-efficacy and empathy prior to the start of the program, but below the midpoint with regard to critical consciousness. Those groups which reflected more heavily regarding critical consciousness of their topics had completed more of their data collection and analysis than groups who did not express reflection on their topic in this way. Therefore, it is possible that the development of critical consciousness is still undergoing among students as they finalized their projects and presented results in the spring semester that are not captured in the posttest survey and focus groups conducted in the fall semester. The diversity of topics that students selected may also account for the lower scores on this variable, as some topics were highly salient with regards to exploring power dynamics and social institutions (perceptions of diversity classes, women's empowerment, identity and intersectionality) while others were more descriptive/pragmatic in nature (recycling and sustainability programs, food insecurity on campus, international students' perceptions of free speech).

Experimental groups had higher scores on all individual level variables than control groups. This is likely explained by their additional participation in practical research-related activities, personal reflection, and interaction with others. The student-run nature of the participatory evaluation activities may also have contributed to their civic engagement self-efficacy as they were asked to contribute to discussions about ways in which they both experienced the program, and how they felt the program could be improved. This represents an aspect of incorporating youth voice which can lead to increased sense of self-efficacy. Students

in the experiment also spent more time with members of the program since the evaluation meetings were in group settings. Therefore, they spent more time reflecting alongside other participants in the program and both shared and debated their various experiences. This could help explain the higher mean score changes in their empathy scores. While control groups had lower mean score changes in these individual variables, it should also be noted that decreases in self-efficacy may also represent an honest assessment of participants' skillsets. Control groups had frank and honest self and group-reflections of their groups challenges. This honest and clear-minded assessment is also an important part of maturation and skill development, as over-confidence bias can lead to underdevelopment of skillsets. Therefore, the lower-levels of self-efficacy do not necessarily represent less success in personal development and learning, as recognizing one's limitations is an important aspect of this.

The following is a summary of the key conclusions regarding the individual outcomes of the Youth as Researchers program:

Self-Confidence: The findings at the individual level support findings from past literature. In particular, when looking at the YPAR program of YaR as a whole, there is evidence that participation in the program led to higher levels of both civic engagement and research related self-efficacy. This mirrors past findings that participation in YPAR can increase youth's self-efficacy and creative expression (Morsillo & Prilleltensky, 2007; Wartenweiler & Mansukhani, 2016).

Cognitive Development: Knowledge and critical thinking also increased as students learned to problem solve throughout their research experience and learned important information about their social topics. This is in confirmation with past findings that YPAR can increase critical thinking skills (Foster-Fishman et al, 2010; Ozer, 2017; Kirshner, Pozzoboni & Jones, 2011), including the ability to take the perspective of other people, an important cognitive ability related to empathy. It also increased their knowledge about social injustices which is corroborated by past research (Morsillo & Prilleltensky, 2007; Watts & Flanagan, 2007; Watts, Griffith & Abdul-Adil, 1999; Watts, Williams & Jagers, 2003; Bautista et al, 2013).

Personal Reflection and Identity: They engaged in personal reflection about their own skillsets, motivations, and leadership development. It also led to an integration of one's personal and professional skillsets and the merging of professional and personal values. This also supports past literature which has found that YPAR can help youth explore and integrate their personal identities with the social settings around them (Torre, 2009; Torre et al, 2008; Strobel, Osberg, McLaughlin, 2006; Tuck et al, 2008; Dutta, 2017; Abo-Zena & Pavalow, 2016).

The following is a summary of the conclusions regarding the individual outcomes of the additional YPE activities added to the YaR:

Increased Self-Confidence and Skills: Participants in the experiment demonstrated high levels of self-confidence as a result of participating in YPE which is support by past

literature (Lau, 2003; Sabo, 2003). In particular they had increased levels of self-confidence regarding their research skills and abilities which is supported by past findings (Checkoway & Richards-Schuster, 2003; Lau 2003; London, Zimmerman & Erbstein, 2003; Flores 2008)

Deeper Personal Reflection: Participants in the experiment also demonstrated deeper reflections about their own learning and skillsets as a result of the evaluation activities. This corresponds to past literature about the learning function that participatory evaluation can have (Checkoway & Richards-Schuster, 2003; Lau, et al., 2003; London et al., 2003; Flores, 2008).

Unique Findings at the Individual Level:

This study also highlights some unique findings. In particular, this study found that participants reflected on the group roles that they played as individuals, further strengthening their reflection on their personal abilities, unique skills, etc. Many past YPAR programs might take students from within the same class, major, or afterschool club, but participants in this program came from a wide variety of majors throughout the university campus and included youth of varying ages within the undergraduate population. Therefore, the differences among these students is wider in some ways than most YPAR groups, where participants are of the same ethnic/racial classification.

This study also found that the evaluation activities played a logistical and program supportive role. This is a topic discussed in the literature but not robustly empirically found. Attending the evaluation activities increased participants' motivation and commitment to the

program itself and this is a new finding. It supported group logistics and infused an adult-facilitator role into the program experience which seemed to help support students.

Relational Changes

There is also strong evidence to indicate that participation in YaR caused relational changes in participants. Explanations for why the relational changes matter for this program are likely due to the group-based nature of the program. Students discuss how the opportunity was unique because they had the chance to meet with other students outside of their majors or ages, established friendships, and were exposed to diverse thoughts and perspectives. For some, this program provided an opportunity to meet students they would not have otherwise met, to feel that there are like-minded activist-oriented students on campus, and to be more exposed to and hear the perspectives of students of different racial and ethnic backgrounds. At the same time, groups grappled with and struggled with group work and managing professional peer-relationships since they were required to organize, establish governance procedures, maintain motivation, and either choose to share leadership or allow for a single leader to emerge within their group. Various groups had differing levels of success with accomplishing these tasks, but the group based nature required addressing these realities regardless of level of successful group dynamics.

The experimental group had higher positive changes related to relational dynamics as a result of the program. Experimental groups' mean change scores for the collapsed socioecological variable "relationships" was 1.5 times higher than the control groups mean change. The additional evaluation activities included reflective activities both alone (through written responses) and within a group face-to-face. Participants in the experimental also

interviewed one another. While the group dynamics within experimental groups differed in their desire for different structures of governance and the salience of their topic, they had more group dynamic success than those involved in the control groups. Groups in the experiment also discussed feeling a connection to the program, the researcher, and other youth involved in YaR as a result of the experimental activities. Ability to influence others was also higher in the experimental group.

Control groups struggled with managing their group dynamics more than the experimental groups. In particular, they discussed more struggles in maintaining motivation and handling logistical tasks. These groups met less often, communicated more poorly, and reflected more negatively on their group's work. This could be in part due to the challenging group dynamics the control groups experienced and the less contact time these groups spent with one another.

Interpretation of Relational-Level Outcomes

There is moderate evidence to indicate that participation in the program led to higher levels of social support among fellow youth for the youth participants. This collapsed socioecological variable was also statistically significant in its mean change among all youth participants. These changes can be partially explained by the group nature of the program and the interactions participants had with other young people. Most of the youth did not know one another prior to joining the program, so experience in this program widened their social networks on campus. Most groups spoke fondly of their group members, using words like "friends," "like-minded people," and calling their group members "good people" who they could "have fun

with.” Each group went through various levels of struggle and they did so not as individuals, but as a group.

Among the experimental groups, the mean changes for social support among youth were nearly twice as high as the mean changes for the control group. This may be partially explained by the additional interactions with other youth and the collaborative way in which the participatory evaluation activities took place. Moreover, the participants in the evaluation often expressed emotional feelings about their group’s progress or their topic and were able to also be a sounding-board for others’ feelings as well. Focus group analysis demonstrated that the group reflective nature of these meetings, provided a sense of support for these participants, and therefore, may help explain the higher changes in this variable among the experimental groups.

Participation in the program did not lead to increases in feelings of social support with adults, however. This is likely due to the fact that participants had limited interaction with adults on campus or in the community as part of their experience. In fact, they received some resistance and lack of communication from professors and adult leaders with whom they contacted for support. While the researcher interacted with all participants throughout the program, this interaction was limited and participants in the program may or may not have perceived the researcher as an “adult older than me,” the wording used in the survey. While a relationship did manifest between the researcher and all groups, particular the experimental groups, this relationship may or may not have been interpreted as one in which youth expanded their adult networks and support structures given that the researcher is a graduate student approximately 8-10 years older than the students. This is further supported by the fact that there was hardly any difference in mean change scores on this variable among the control and experimental groups, even though the experimental groups had more interaction with the researcher.

The highest relational changes occurred for the variable “ability to influence others.” This was a researcher-created set of questions which touched on the ability of respondents to communicate clearly, openly, and in a persuasive way with others. This is the relational variable which had the highest change among all participants and was statistically significant. The nature of the program and its emphasis on youth voice and perspectives may have encouraged the development of this variable over time. Moreover, this set of questions also addresses the issue of values and whether respondents have a strong sense of what they value and are able to communicate those opinions and values with others. The nature of choosing a social-justice research topic among other youth, in which grappling and discussing values and interests was necessary, may have developed this confidence among participants.

Experimental groups had slightly higher scores on this variable than the control group, but this was modest (1.5 times higher than the control). The experiment involved some additional discussion and interactions with other youth and the adult researcher than what the control group experienced, which may help explain this difference. Additionally, the goal of the evaluation was to influence the way the program is run in the future and all participants in the evaluation were aware of this, which may have increased their sense that they are able to influence others through influencing the trajectory of the program.

The following is a summary of the key conclusions regarding the relational outcomes of the Youth as Researchers program:

Social Connections to other Youth: The findings from this study indicate that participants in the Youth as Researchers program expanded their peer social networks as

a result of this program. They made friendships and were exposed to peers different than them in academic major, age, and race/ethnicity and most did not know each other prior to beginning the program. The increase in peer relationships and social connections is supported by past YPAR research (Price & Mencke, 2013; Vaughan, 2014; Strobel, Osberg, & McLaughlin, 2006; Quijada Cerecer, Cahill & Bradley, 2013)

Youth Voice: The findings from this study also indicate that participants in the Youth as Researchers program increased their sense of youth voice through increased sense of being able to influence others, both in their skillset related to civic activities and through the collection of their research data to be used to showcase to others. This increase in youth voice is supported by past findings from other YPAR studies (Chen, Weiss, & Nicholson, 2010; Zeldin, Petrokubi & MacNeil, 2008; Shamrova & Cummings, 2017; Dolan, Christens & Lin, 2015; Bautista et al., 2013).

The following is a summary of the conclusions regarding the relational outcomes of the additional YPE activities added to the YaR:

Increased Social Connections to other Youth: Findings from this study show that youth who participated in the YPE activities had higher overall social connections with other youth than those who only participated in the program. The evaluation activities exposed them to more youth and deepened their relational connection to other youth due to the nature of the reflective activities and open dialogue. This increase in social networks is supported by past research (Powers & Tiffany, 2006).

Increased Motivation: Participants in the experiment also showed increased levels of motivation and commitment to the program as a result of the evaluation activities. They were asked to reflect on their motivations and spent more time with program-related adults as a result of their involvement in the participatory evaluation. These activities then, supported programmatic functions and led to an increase in participants' motivation and accountability. This is corroborated by past findings that since lead evaluators are usually adults, that participatory evaluation with youth can strengthen adult-youth relationships which can have motivating and empowering outcomes for youth (Checkoway & Richards-Schuster, 2003; Powers & Tiffany, 2006; London, Zimmerman & Erbstein, 2003).

Increased Youth Voice: Participants in the experiment also demonstrated higher levels of youth voice. They scored higher on mean changes feeling they can influence others and played an active role in designing evaluation questions and results to actively improve the program. This is also supported by past literature about the role of adult evaluator-youth relationships in creating partnerships for program change (Checkoway & Richards-Schuster, 2003; Powers & Tiffany, 2006; London, Zimmerman & Erbstein, 2003). This increased youth voice also has deepened the understanding of the program evaluation results from the perspective of the youth and will enable changes to the program to be aligned with youth needs, which are other outcomes from YPE literature (Powers & Tiffany, 2006; Lau, 2003)

Unique Findings at the Relational Level:

The relational findings of this study also have some unique elements. This study diverges from others in that there is weak information to support that participation in the program or the evaluation increased the feelings of social support among adults for the youth who participated in the Youth as Researchers program. Past research in both YPAR and YPE has shown adult social support and relational strengthening as an outcome (Ozer & Wright, 2012; Livingstone, Celemencki & Calixte, 2014; Strobel, Osberg, & McLaughlin, 2006; Checkoway & Richards-Schuster, 2003; Powers & Tiffany, 2006; London, Zimmerman & Erbstein, 2003). Adult support was not a key component of this program given the youth-driven nature of the program and the fact that the participants attended regular meetings of their own scheduling rather than with adult supervision. The results may also be due to participants not perceiving the support from the researcher as support from an older adult and/or the frustrating experience youth had with adults they did try to reach out to during the program (professors and community leaders).

Another unique finding is that which is also related to the lack of adult involvement in the program: group governance and problem-solving skills. Given that groups were autonomous, they had to create structure, governance, and problem solve using their own ideas and strategies. This is also different than other YPAR programs and more appropriate given the older age of the participants. Therefore, some of the findings from the relational outcomes were related to the experience, successes, and challenges of creating a team and working within a group. It was additionally challenging and rewarding for participants in that they did not already know their group members so they had to work to build trust and connections. Participants reflected upon this in positive ways; they were encouraged to meet likeminded peers with social justice passions and felt they would be able to use these team building skillsets in their future jobs.

Community and Organizational-Level Changes

Overall, there is weaker evidence to indicate that participation in YaR led to community level changes. When examining all YaR participants, the socioecological variable “community” was not statistically significant when mean changes were assessed. While overall focus group discussions did indicate that students learned about how the Penn State and surrounding community address their various topics, only one group conducted interviews outside of the university setting, limiting the community influence to the college-campus community.

There is evidence to suggest that experimental groups had higher levels of community change since the overall socioecological variable “community/organization” was statistically significant among the experimental groups and was 3x higher than within the control groups. This is the finding with the largest discrepancy among experimental and control groups, since while individual and relational changes were also higher in the experimental group, this is the change representing the most directional divergence among experimental and control groups. Whereas for the experimental group, the socioecological category “community” increased, for the control groups it decreased. Those who participated in the experiment discussed their feelings of connection to the program and in particular mention how they felt they were able to improve the program through their feedback. Some also talked about the idea of leaving behind a better program for future Penn State students. The idea of youth voice was emphasized during the additional evaluation activities both verbally and through action, since it was youth who were creating the evaluation questions to assess and improve the program.

Interpretation of Community and Organizational- Level Outcomes

When examined all together, YaR participants had statistically significant mean change scores regarding youth participation in civic organizations from before and after their program participation. This set of questions asked respondents their opinions about whether youth participation in civic organizations can make them run more smoothly and solve problems. It is possible that the premise of the program and the introduction of the program purpose to students, eliciting youth voice to help make more informed community and policy changes, may have impacted this positively. However, youth participation in communities was not statistically significant overall for all YaR participants. This set of questions was worded exactly the same only it asked respondents their opinions about youth participation within their communities in general.

Community attachment also was not statistically significant in mean change before and after the program when all YaR participants were examined together. This was a measure of the emotional closeness respondents have to the community around them. It is possible that the reduced interaction within the wider community may have played a part in this lack of significant change, as well as the transient nature of college students in a small, rural college town. Moreover, many students who participated in this program do not reflect the demographics of the local community of State College. Many students were originally from urban areas, are non-White and/or international students and have moved to the area to attend college only. Many have graduate and professional school ambitions that will likely take them out of the area in the near future.

There was particular divergence among the experimental and control group with respect to the community variables. The mean change in youth participation in civic organizations was

2x higher in the experimental group than the control group. Also, while the experimental group had a higher mean change score on youth participation in communities, the control group had a slight negative mean change score. These differences in mean changes for youth participation within organizations and the community could potentially be explained by the experimental group's additional connection to the program through the evaluation and their interest in leaving behind a legacy which may have caused them to feel more attached to their university and local community. Moreover, the additional program evaluation activities may have made them feel that youth voice is more important in civic and community organizations since they were modeling this behavior through the evaluation activities.

It should be noted that while most groups had some struggles gathering data and information for their projects, a few groups came up against real barriers within the university community which prevented them from gathering data. These struggles in particular were with getting support from professors to either interview, speak to about their topic, or allow them to come to their class to gather information from students. At least two groups reported not receiving responses from professors when they reached out in this way (one experimental group and one control group). Another group attempted to schedule focus groups in order to collect data from Penn State students, and had to cancel the focus group twice due to non-attendance and this group was part of the control. Community organizations and public data (for experimental Group 2's topic of food insecurity) were likewise unresponsive or unable to be accessed easily. These frustrations in the lack of cooperation of those at Penn State (professors and students) as well as representatives of organizations in the surrounding community may have played a part in the lower levels of community-level mean changes for all groups within this program.

The following is a summary of the key conclusions regarding the relational outcomes of the Youth as Researchers program:

Youth Participation and Voice in Organizations: Findings from this study indicate that participants in the Youth as Researchers program increased their sense that youth voice and participation within civic organizations are important and can help these organizations function at a higher level. This is in tentative congruence with other studies (Chen, Weiss, & Nicholson, 2010; Zeldin, Petrokubi & MacNeil, 2008; Shamrova & Cummings, 2017; Dolan, Christens & Lin, 2015; Bautista et al., 2013; Shamrova & Cummings, 2017) which have shown that YPAR can increase youths' voice in organizational decision-making. This was not measured at the organizational level, but rather relies upon the self-reported perceptions of participants that youth participation in civic organizations is important.

The following is a summary of the key conclusions regarding the relational outcomes of the additional YPE activities added to the YaR:

Increased Youth Participation and Voice in Organizations: Participants in the experiment had higher levels of feeling that youth participation is important within civic organizations. This may be due in part to the fact they engaged in more hands-on activities which support this notion since they were asked to provide their participation in order to actively change, influence, and improve the Youth as Researchers program. This

is tangentially related to past research's outcomes that YPE can create a stronger alignment of program design with youth's needs and increase the use of evaluation results (Lau 2003). It is also mildly related to findings which have shown that YPE can increase organizational team building and dialogue (Flores, 2008; Gildin, 2003) and increase youth's involvement in and critique of community life (Arnold, Dolenc, & Wells, 2008; Powers & Tiffany, 2006; Krischner et al., 2012). This again was measured on an individual perceptual scale, so actual measures of organizations or community members were not taken hence the only moderate or tangential connection to past literature at this level.

Increased Community Attachment: Participants in the evaluation also had higher attachment to the community than control groups. The reasons for this are less clear and perhaps reflect the additional peer bonding which may have increased the emotional salience participants had for those within the Penn State community. This may also be in part due to the frustrations some groups had within the control groups of actively gathering outside community support for their projects, although some experimental groups also experienced these struggles. Again, this is related to past findings which have shown an increase in youth's involvement in and critique of community life which can result as a part of YPE and may be related to the sense of attachment youth have to the community where they live (Arnold, Dolenc, & Wells, 2008; Powers & Tiffany, 2006; Krischner et al., 2012). However, caution is taken in the confidence in this since measures of community attachment are at the individual level and measure perceptions rather than actions in the community.

Unique Findings at the Community Level

Given the time restricted nature of the program and the school setting in which it occurred, it is not very surprising that the community level changes would be the weakest of all three levels of change measured in this study. What is more interesting however, is the divergence in these findings among the experimental and control groups. While for experimental groups the overall socioecological variable “community/organizations” increased positively, for control groups this category decreased over their participation in the program. The reasons for this are less clear as all groups participated in primarily student-driven research on topics on campus and interviewed or survey primarily students. Moreover, while some groups experienced explicit frustration and lack of cooperation among representatives of the Penn State and local community, these frustrations occurred in both experimental and control groups.

Connection of Overall Study Findings to Theory

This study helps advance the knowledge we have about the process-related impacts of participatory evaluation. It takes a Transformative Participatory Evaluation lens since the focus of the study was to examine impacts on participants (rather than organizations or staff) who engage in PE. The unique design of this study allowed for antecedent factors to be held constant, manipulated process related factors, and measured consequences both qualitatively and quantitatively.

Regarding antecedent factors, the context of this study occurred within an already participatory program. The unique nature of the Youth as Researchers program posited youth voice as a critical feature necessary for tackling social justice. Therefore, the premise of the

program and the structure of its activities (the hands off and youth-driven nature of the program, the active learning of the training, the freedom to choose any topic of interest) already lent itself to additional participatory activities. The program evaluator for this study was the researcher, therefore all evaluator-related contextual factors were held constant as she was the sole source of interaction students had throughout the evaluation activities. This is a unique strength of this study in that the contextual variations most common in field-based applied research about evaluation practices are heavily reduced in this study, allowing for focus to be placed on the relationship between process factors and consequences.

This study purposefully manipulated two aspects of process-related participatory evaluation factors. The study increased the control of technical decision making in the evaluation by allowing participants to choose and craft evaluation questions as well as carry out peer interviews to collect data using those questions. The study also manipulated the depth of participation since those involved in the experimental activities had deeper levels of participation in the evaluations than those who were part of the control group (who only participated in a pre/posttest survey and focus group rather than the additional evaluation activities).

Findings from this study contribute to knowledge about these connections (between process factors and consequences of PE). This study demonstrates the role PE can play in supporting existing participatory youth programming. In particular, PE not only assisted in the gathering of useful programmatic data for evaluation use, but served to support the program logistics as well as the learning-related goals of the program at the individual level. While the individual-level learning outcomes of YPE and PE in general are better established in literature, a unique finding of this study is the additional support PE fostered logistically. That is, the simple act of coming together within a room for the purpose of engaging in reflection, question

creation, and evaluation data collection increased participants' stated motivation and commitment to the program and helped them overcome the logistical barriers they experienced towards meeting their group members. In its simplest terms, those that participated in the evaluation had more success in the program itself, demonstrating the interactive nature of PE within the program contexts which it is used.

There is initial indicative evidence to suggest that the addition of youth voice through YPE may have impacted participants' sense of attachment to the university and local area as well as their sense that youth participation within civic and community organizations is useful. This is an example of the longer-term impacts with more tentative theoretical connections with the PE conceptual framework. Implications for theory would be that not only might PE help develop skillsets of individuals within a program (supported by this study as well), but might also help alter the mental-emotional dispositions of participants in ways that encourage their participation outside the program. While this has been supported by qualitative data, quantitative data from this study tentatively support this proposition.

Future research could explore how and under what conditions YPE fosters the variety of variables explored in this study. For instance, does the type of research method used during the YPE (in this case peer interviews and interactive focus groups) impact the development of any of the outcomes explored in this study, such as empathy, self-efficacy, and relationships to others? Future research could also explore the issue of consistency and attendance at YPE meetings and how this relates to the strength of measured outcomes among participants.

Implications for Practice

The findings of the study also have implications for practice. This research is explicitly about the role of evaluation, and as such used a program called Youth as Researchers to explore the role evaluation can play in participants' experiences. The purpose of the research study was not to defend or perfect the program itself, but to use the program as the setting to understand participant involvement in evaluation. However, implications for practice within both evaluation and programmatic delivery can be drawn given the richness and detail of the research findings.

The program itself is a unique opportunity for university students to contribute to research and outreach-based goals of a university outside of class settings. The nature of the composition of the groups were also unique in that diverse students participated from across the university who were of different majors, ages, and race/ethnicities, making the opportunity quite different from standard activities within a students' major or classes. Another unique aspect of the program is the autonomy given at all aspects of the research to participants and the small scope of the research projects. YaR participants were "left alone" and not guided heavily and this led to deeper reflections about personal leadership and responsibility in a setting that would not directly endanger their status as students (i.e. non-graded or tied to funding). Finally, students were also exposed to the concept of qualitative research and non-experimental research, many for the first time, even among those who were social science or liberal arts majors. Universities and youth or community programming serving youth may do well to consider the importance of both creative freedom, challenge, and exposure to diverse others that were hallmarks of this program as ways to help youth develop skillsets outside of individually-focused programs.

Those who work both within program evaluation and program development could consider the role that participatory evaluation could have on the program development process

itself. That is, the facilitative and team-work nature of participatory evaluation could be leveraged during the program design process, particularly if participants are present who represent the demographic the program aims to target. There is a close line between the development of evaluation questions for an existing program by participants and the development of questions or goals for a program being developed but not yet implemented. Involving potential program participants in the program design itself can help programs ensure that their goals, procedures, and even tone towards marketing and recruitment are better suited for the beneficiaries and participants of these future programs. In this way, the lessons learned about the additional learning, relational strengthening, and practice for raising one's voice found in this study could be also measured and researched during the program design stage for future studies.

This study also has implications for programs which more narrowly focus on individual aspects of youth development, such as those that aim to develop youth's empathy, agency, or leadership within specific areas. Many of these programs are curtailed to very specific contextual areas or topics, rather than the open-ended nature of the Youth as Researchers project, but could also benefit from the practices of investing and involving youth participation in evaluation. Given that youth increased their individual, relational, and some community-related traits and skills through exposure to participatory evaluation activities, these activities could be incorporated into youth programs which seek to develop these traits in young people. Participatory evaluation can strongly align with the goals of many traditional youth programs (Zeller-Berkman et al., 2016) and therefore can be thought of as something to incorporate within the existing contexts of youth programming.

For practitioners looking to incorporate YPE into work with young adults in educational settings, the study procedures and activities can be used as a guide or incorporated into future evaluations. Practitioners working with young adults might also consider the tapered nature of the evaluation activities. That is, the researcher started out with a meeting where she played a more directive-facilitative role, then tapered off control to participants slowly so that the third meeting was completing youth-driven. Beginning the evaluation process early and ensuring appropriate technical training has occurred (conducted in this study as part of the already existing nature of the program) are also practical recommendations. The use of a reflective element and diverse evaluation activities allowing for large groups, breakout groups, peer interviewing one-on-one, and individual reflections were all used in order to gather information in a variety of social settings and to accommodate ranges in personality preferences.

In total, this study has shown that a quasi-experimental, mixed-methods examination of the process related impacts of participating in an evaluation is both possible and corresponds to what the existing conceptual frameworks about participatory evaluation would predict. In the simplest sense, within a context where youth participation was already prevalent, the additional infusion of participatory evaluation activities demonstrated indicative evidence of additional benefits for the youth who participated. As we look for ways to strengthen and expand youth programming to continue serving youth and their communities, one way to do so involves not reinventing the wheel of creating new youth programs, but through capitalizing on the commonly existing requirement for these programs to be evaluated. Not only can participatory evaluation help provide the data needed for accountability, funding, and program improvement, but it can have additional programmatic-related benefits for participants.

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Appendix A

Opportunity to Join UNESCO Program "Youth as Researchers"



Do you see social justice issues around you but don't know how to help?

Become a UNESCO Youth Researcher and use research to promote social justice!

This fall, there is an opportunity for **20 Penn State undergraduate students** to join Dr. Mark Brennan, Professor and UNESCO Chair, in a youth-driven social justice research project.

Why should you be involved??

1

VISIBILITY

Be a part of a UNESCO sponsored program and present your findings at UN meetings.

2

TEAMWORK

Learn more about a social justice topic you are passionate about with other Penn State students.

3

EXPERIENCE

Add experience to your resume and get connected to the UNESCO professional network.

Who?

Any Penn State undergraduate student—especially those interested in...

- social problems,
- social research,
- international issues
- and community development

What?

Conduct research about a social justice topic you care about through a prestigious UNESCO program

When and Where?

Weekly 2-3 hour meetings will take place throughout the fall semester on the Penn State campus with the opportunity to extend in the Spring.

Interested?

To be considered for this opportunity, email unescochair@psu.edu by **Friday, September 29th.**

Want To Learn More?

To learn more about Youth as Researchers and the UNESCO chair visit <http://agsci.psu.edu/>

Appendix B

Training Summary for Group 3 Saturday October 14th, 2017

Introductions

At the beginning of the training you were introduced to Dr. Levy Odera, who is an Assistant Professor at Minerva Schools. He encouraged you all by describing the importance of research and engaging in challenging projects as a way to help you all build skills to take you to the professional places you want to go. Kaila Thorn, a recent Master's graduate in Agricultural and Extension Education who is program logistical manager. Erica Odera was also there, she is a PhD student working with Dr. Mark Brennan on this project and lead evaluator on the project.

If you'd like to learn more about Levy's background coming to the US from Kenya	https://www.youtube.com/watch?v=ll11-6Jn5fw
If you'd like to learn more about Minerva Schools	https://www.minerva.kgi.edu/people/levy-odera-phd/ https://www.minerva.kgi.edu
You can contact Levy personally at	oderalevy@gmail.com

Activities

The first activity you engaged in was one where you had to consider how to address State College's rampant crime through research. You had to describe the steps you would take and did so in small groups. This was a fast activity and you had to report your process in just one minute when you finished. Then Levy randomly called upon members of the group to give two negatives and one positive thing about each of the group's summaries.

Strengths	Weaknesses/To work on
<ul style="list-style-type: none"> • Went through the research methods process • Reached the student population • We were specific in the steps to take • Targeted specific components of the research process • Each plan was well put together • Good at working together • Took many steps • Found connections among the steps (not strictly linear) • All asked what types of crime were committed rather than taking that as a given 	<ul style="list-style-type: none"> • Took too long to begin communicating in the groups • Too much focus on finding information, not enough focus on how to use the information • No mention of using experiments to test an outcome • Details in the plans were missing • Didn't think of other types of stakeholders (mostly just police and mayor) • Didn't focus on feasibility of the study • Too many steps • Didn't focus on the research process • Didn't mention much on how to implement or enact change

The second activity you found out “three awesome things” about your groupmates around the room and then reported what you found. This was to get to know the members of your group better since some of you may now have known each other well before this program.

You then were asked to answer questions about what a literature review is and the distinction between qualitative and quantitative research, as well as primary and secondary research. You sat in a circle and answered these questions in a discussion format with Levy calling on you all. Primary research is original and new research while secondary research is research which uses existing information and data. You are asked to engage in primary research for this program, but you can rely upon secondary research to support your projects. Qualitative research focuses on words and feelings of individuals, while quantitative research focuses on numerical measurements. Common qualitative methods are focus groups or interviews while a common quantitative method is surveys.

After dinner, you all went around in circle and talked about your topic and what you want to learn about through doing your group research. After this verbal discussion, you all were put into small groups and wrote down one big question and two smaller/narrower questions underneath to help start bringing your question and focus down into something you can work with. Three themes emerged from this discussion and are: 1) students; 2) well-being; and 3) food security.

After this activity, you walked around to the boards and wrote down all the types of research methods you knew of to gather primary (original, new) data. Levy gave you advice in particular about conducting focus groups and how to use probing questions and deep listening during personal interviews.

At the end, you engaged in what we called a “museum” activity where everyone wrote down they key things they learned during the training and you voted on the “most on point” points that were mentioned. Below is a listing of all the key points you wrote down.

Take away messages

- **Purpose of research**
 1. Research can inform both policy and practice
 2. Make sure to appeal to the “why should we care” argument with why your research is important and why others should do something about what you find.
- **Research process**
 1. Have a strong and specific research question can keep you motivated and focused during your projects (or any future research project).
 2. Narrowing down a research topic into a research question is a challenging, but critical first step to crafting a feasible research project. Writing a big question and then sub questions underneath that big topic can help you hone in on what you really care about.
- **Methods of research**
 1. There are many different methods for conducting research. Both qualitative and quantitative data has their strengths. Qualitative data gives rich information

about an issue while quantitative data allows for collecting information from many different people.

2. Focus groups are different than interviews. Interviews are done with just one person while focus groups are done with a small group of people, about 6-10 individuals.
3. Literature reviews can help you understand whether your question has already been answered or not. During literature reviews, it is important to look for peer reviewed, factual information that is unbiased. When taking notes about this, make sure to summarize in your own words rather than copy big chunks of an author's words. This will help you avoid plagiarism later. It is important to find holes in existing research, to vet these sources, and to use a diversity of sources.

- **Other topics**

1. The ability to think about what you're thinking (metacognition) can help you stretch your intellectual abilities and improve your speed and precision around cognitive tasks (like research!).
2. Know everyone's strengths and weaknesses on a team and use them to your advantage.

Appendix C

Participatory Evaluation Meeting 1

Introduction: [5 min]

Introduce the reason why we are here. Explain the importance of evaluation, be open to any questions about evaluation. Explain my own area of research. Then explain how/why we are doing the evaluation with them for this program. How the evaluation will be used and why we are asking for a participant hands-on approach. Answer any questions they may have. Explain that I would like to tape the discussion but names will never be associated with the tape, only pseudonyms based on gender.

There are two goals of our meeting here today: 1) for me to understand your experiences in the program so far; and 2) to have you create some questions you would like the evaluation to use based on these experiences.

There are three areas in particular we will talk about:

- the recruitment materials
- the trainings you went through
- working within your groups to choose a single research question

First topic [10m]

- How did you all hear about this opportunity? Was it a friend, an email, a flier you saw?
- What about hearing about this opportunity made you want to join?
- [Summarize the key points made after about 5 minutes].
- Now think about everything the group has just said. What would you say was good about this recruitment style and method and what do you think we could improve for next time?
 1. Hand out pieces of paper so they write one good and one bad thing. Then go around the room and share. Put the pros/cons into piles for later.

Second topic [15m]

- Next we will talk about the trainings you went through. What did you think of the training your group went through overall?
 1. Probing: was the training what you expected? why or why not?
 2. did anything about the trainings surprise you? why or why not?
- Now, taking into mind everything everyone has said, what is one good thing about the training and what is one thing that could be improved for next time?
 1. Hand out pieces of paper so they write one good and one bad thing. Then go around the room and share. Put the pros/cons into piles for later.

Third topic [15m]

- Lastly, we will talk about what it has been like to work with your group to narrow your research interests to one research question.

- First, what is the research question your group is exploring?
- How long did it take for you all to choose this topic?
 1. Was choosing the topic difficult- why or why not?
 2. Did anything surprise you about the process of having to choose a topic?
- Now, let's do the same activity one last time. Write down one good thing you have experienced from choosing a topic with your group and one negative thing. Then go around the room and share. Put the pros/cons into piles.

Question Creation [15m]

Now that we have talked about all these different topics, I would like to put everyone into small groups to come up with anywhere from 3-5 questions you would want to be asked about one of the topics we have just talked about. [Put them into three small groups and give them one flip chart and the pros/cons papers corresponding to their topic]

“These are questions you would ask a peer who is not here today if you were evaluating this program. Think of questions you would like to see asked to determine whether someone had a successful experience in:

- Being attracted to the recruitment materials
- Attending and learning from the training
- Working with their group to choose a research question.”

[Give them 8 minutes and at the end report out. Allow for any additional questions or slight changes to be added to the list by the wider group.] [5-10m reporting out]

Wrap up: [1minute]

Thank them and let them know that I will be sending out an email shortly to schedule a second session just like this one, but it will cover the stage of actually creating a research design and conducting the research. This will be either the week before or the week after Thanksgiving, depending on how far along everyone's projects are going. I will also send an email asking for short reflective essays about your personal experience in the program and what you thought of this activity.

Appendix D

Youth as Researchers Evaluation Peer Interview Questions

Recruitment

1. Do you feel that this program attracted students from diverse majors?

Training

2. What did you think about the active learning approach of the training?
3. On a scale of 1 to 10 (with 10 being highly confident) how confident were you in research methods before the training? After the training?

Group Dynamics

4. Do you feel the number of people in your group was ideal? Why or why not?
5. How does your group make decisions when members have different opinions?

Research Process

6. When choosing a research question, what did your group do well? What could your group have improved?

Final product

7. Are you satisfied with your group's final product? Why or why not?

Program Value

8. If you could change anything about this program, what would it be?
9. Would you recommend this program to others?

Personal Changes

10. On a scale of 1 to 10 (with 10 being very invested) how would you rate your investment in this project when you first started? How would you rate it now at the end? Is there a difference, if so, why?
11. What skills would you say you have used or developed as a result of participating in this program?

Appendix E
Pretest Survey

Your name _____

First, we'd like to ask you some questions about why you decided to become involved in Youth as Researchers.

Have you ever participated in a group research project before? (Either for a school project or outside of school)

- Yes No

Why did you decide to get involved in the Youth as Researchers program?

What do you hope you will get out of your Youth as Researchers experience?

How confident are you that you can do the following activities?.....

	Not Confident at all	Not very Confident	Neutral	Somewhat Confident	Very Confident
Create a research question.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Find literature on a research topic...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create a survey.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interview people.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyze survey results.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyze interview results.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write a research report.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Present findings from a research project.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you had to choose one, which of the tasks above are you most confident in your ability to do today _____

Next, we'd like to ask you questions about your relationships with other people.

Take a moment to think about the young people and adults you interact with. How strongly do you agree or disagree with the following statements?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
There are other <u>people my age</u> I can turn to for advice and guidance.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are <u>people my age</u> who share my interests and concerns.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel part of a group of <u>people my age</u> who share my attitudes and beliefs.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can access <u>people my age</u> who are influential in making change happen...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are <u>adults older than me</u> I can turn to for advice and guidance.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are <u>adults older than me</u> who share my interests and concerns.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel part of a group of <u>adults older than me</u> who share my attitudes and beliefs.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can access <u>adults older than me</u> who are influential in making change happen.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Now, take a moment to think about the Penn State campus and the surrounding community in State College, PA.

How strongly do you agree or disagree with the following statements?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Overall, I am very attached to this community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I belong in this community.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The friendships and association that I have with other people in this community mean a lot to me.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If the people in this community were planning something, I'd think of it as something WE were doing rather than THEY were doing.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I needed advice about something, I could go to someone in this community.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think I agree with most people in this community about what is important in life.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Given the opportunity, I would move out of this community.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel loyal to the people in this community.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I plan to remain a resident of this community for a number of years.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to think of myself as similar to the people who live in this community.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The future success of this community is very important to me.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Imagine that there is a problem on the Penn State campus or in the surrounding community in State College, PA that you want to do something about. How well do you think you would be able to do the following activities?

	Definitely Can't	Probably Can't	Maybe	Probably Can	Definitely Can
Create a plan to address the problem...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get other people to care about the problem.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organize and run a meeting.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Express your views in front of a group of people.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify individuals or groups that could help you with the problem.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write an opinion letter to a local/national newspaper.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Call someone on the phone that you have never met before to get their help with the problem.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact an elected official about the problem.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organize a petition.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you had to choose one, which of the tasks above are you most confident in your ability to do today _____

How strongly do you agree or disagree with the following statements?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I feel I have a voice in what goes on in my community.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that adults take me seriously when I have something to say.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to express my thoughts confidently with adults.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a strong sense of what I value in life.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a group of friends who I feel safe to express my opinions with.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I spoke out about an issue in my community, others would listen to me.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I started a project to change something in my community, others would join me...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next we'd like to ask you what you think about young people being involved in civic organizations and in the community. When we say "civic organizations" we mean any organization with social good as its goal (for example, social justice, religious, political, or educational organizations).

Please list any civic organizations you are a part of either through Penn State or outside of Penn State.

How strongly do you agree or disagree with the following statements?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Youth participation in how civic organizations are run can make civic organizations better.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lots of positive changes can happen in civic organizations when youth work together.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizing groups of youth to express their opinions could help solve problems in civic organizations.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All civic organizations should have youth input.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Youth can have more influence on what happens in civic organizations if they act together rather than alone.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Youth participation in how <u>communities</u> are run can make communities better.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lots of positive changes can happen in <u>communities</u> when youth work together...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizing groups of youth to express their opinions could help solve problems in <u>communities</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All <u>communities</u> should have youth input.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Youth can have more influence on what happens in <u>communities</u> if they act together rather than alone.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Finally, we'd like to finish by asking you some questions about how you view the world and yourself.

Below is a list of statements about how you might think of the world around you. Please put a check mark next to any of the statements you agree with.

I believe that the world is basically fair	<input type="checkbox"/>
I believe that the world is basically fair but others believe that it is unfair	<input type="checkbox"/>
I believe that the world is unfair for some people	<input type="checkbox"/>
I believe that the world is unfair, and I make sure to treat others fairly	<input type="checkbox"/>
I believe that all people are treated equally	<input type="checkbox"/>
I believe that some people don't take advantage of opportunities given to them and blame others instead	<input type="checkbox"/>
I believe that some groups are discriminated against	<input type="checkbox"/>
I work to make sure that people are treated equally and are given equal chances	<input type="checkbox"/>
I think that education gives everyone an equal chance to do well	<input type="checkbox"/>
I think that education gives everyone who works hard an equal chance	<input type="checkbox"/>
I think that the educational system is unequal	<input type="checkbox"/>
I think that the educational system needs to be changed in order for everyone to have an equal chance	<input type="checkbox"/>
I believe people get what they deserve	<input type="checkbox"/>
I believe that some people are treated badly but there are ways that they can work to be treated fairly	<input type="checkbox"/>
I believe that some people are treated badly because of oppression	<input type="checkbox"/>
I feel angry that some people are treated badly because of oppression and I often do something to change it	<input type="checkbox"/>
I think all social groups are respected	<input type="checkbox"/>
I think the social groups that are not respected have done things that lead people to think badly of them	<input type="checkbox"/>
I think people do not respect members of some social groups based on stereotypes	<input type="checkbox"/>
I am respectful of all people in all social groups, and I speak up when others are not	<input type="checkbox"/>

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I don't notice when people make prejudiced comments	<input type="checkbox"/>
I notice when people make prejudiced comments and it hurts me	<input type="checkbox"/>
It hurts me when people make prejudiced comments but I am able to move on	<input type="checkbox"/>
When someone makes a prejudiced comment, I tell them what they said is hurtful	<input type="checkbox"/>
When people tell a joke that makes fun of a social group, I laugh and don't really think about it	<input type="checkbox"/>
When people tell a joke that makes fun of a social group, I laugh but also feel uncomfortable	<input type="checkbox"/>
When people tell a joke that makes fun of a social group, I realize that the joke is based on a stereotype	<input type="checkbox"/>
I tell people when I feel that their joke was offensive	<input type="checkbox"/>
I don't see much oppression in this country	<input type="checkbox"/>
I feel hopeless and overwhelmed when I think about oppression in this country	<input type="checkbox"/>
I feel like oppression in this country is less than in the past and will continue to change	<input type="checkbox"/>
I actively work to support organizations which help people who are oppressed	<input type="checkbox"/>
I don't feel bad when people say they have been oppressed	<input type="checkbox"/>
I feel sad or angry when experiencing or seeing oppression	<input type="checkbox"/>
I often become sad or angry when experiencing or seeing oppression, but I find ways to cope with my feelings	<input type="checkbox"/>
I work to protect myself from negative feelings when acts of oppression happen	<input type="checkbox"/>

How strongly do you agree or disagree with the following statements?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I try to look at everybody's side of a disagreement before I make a decision.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see someone being taken advantage of, I feel kind of protective towards them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sometimes try to understand my friends better by imagining how things look from their perspective.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other people's misfortunes do not usually disturb me a great deal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see someone being treated unfairly, I sometimes don't feel very much pity for them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am often quite touched by things that I see happen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that there are two sides to every question and try to look at them both.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would describe myself as a pretty soft-hearted person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm upset at someone, I usually try to "put myself in his shoes" for a while.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Before criticizing somebody, I try to imagine how I would feel if I were in their place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Consider the jobs you may have thought about that you might be interested in after graduation. Please list up to three jobs you have thought might interest you.

- 1) _____
- 2) _____
- 3) _____

How old are you?

_____ years old.

What classification are you at Penn State?

- Freshman
- Sophomore
- Junior
- Senior

How would you describe your racial/ethnic background?

Thank you!!

Appendix F

Moderator's Guide- Final Focus Groups Youth as Researchers Program

Introduction [1-2 minutes]

Thank you for coming today. As you know, the purpose of the focus group today will be to explore your experiences in the program. This is important for us to understand what your group experienced and why. We are looking to both improve and expand this program and we want to have as much information as possible in order to do that, so your input is very important.

We have 1 and a half hours here today and our conversation will be just about one hour of that time. After the focus group, I will ask you to complete the posttest survey- this is a survey very similar to the one you took at your training. Your surveys will also help us understand how the program works and ways it might be improved.

I want to hear from everyone and so if one person is speaking a lot I may ask you to be brief and if someone is not speaking much I may invite them to give their opinion. I am tape recording the conversation, but your name will not be associated with your responses.

Before we begin are there any questions you all have for me?

Motivation [5 minutes]

- Why did you all decide to sign up for this program?

Working in a Group [30 minutes]

- Working in any group has moments when things are going very well and times when things are more challenging. Research also sometimes involves changing your plans along the way. Keeping this in mind, can you please describe the process your group went through to complete your research? [10 minutes]
 1. Do you feel like your relationship as a group changed throughout the process? If so, how?
 2. What role did different team members play?
- Every group, no matter what the setting, has unique strengths. What would you say are the unique strengths of your group? [10 minutes] (or maybe, how does this group compare to others you have worked with in the past?)
 1. What surprised you the most about how your group works together?
- This program takes a hands-off approach and allows each of the groups to choose their own topic and approaches to research. Describe what it was like for your group to participate in such a hands-off program. [10 minutes]
 1. Did you enjoy it? Not enjoy it? Why or why not?

Learning about the Topic [10 minutes]

- Did participating in this research project change your understanding of your topic? If yes, how?
 1. Did it change your understanding of yourself, of research?

Recommendations for Peers [10 minutes]

- If a friend was interested in joining the program what would you tell them?

Participatory Evaluation Question (only for treatment groups) [10 minutes]

- As you know, your group was invited to attend a few extra meetings with me to help design and collect evaluation information on this program. Did participation in the evaluation add anything to your experience in the program? If so, what?

[At the end, verbally summarize the key points discussed and ask for their feedback and possible changes/misinterpretations [1-2 minutes]. Give them the chance to add any last comments after the summary before ending.]

Appendix G

Summary of all Final Codes and Themes

Group 1 Focus Group (Control Group)

- 1) **New experience and skill development**- Using the program to prepare for future professional life and expanding worldview through challenging themselves.
 - 2) **Program and Youth driven/hands off**
 - a. ***Mixed emotions about hands-off approach***- Appreciated unusual university opportunity to engage in active, non-graded learning and professional skills such as discipline. Struggled to focus research topic which led to emotional ups and downs.
 - b. ***Program support and guidance***- Attracted to the program support and training and appreciated program staff's explicit guidance. Desire for more guidance to overcome their lost motivation.
 - 3) **Problem solving through research process**- *had to work to narrow their research topic*
 - a. ***Group deliberation and discussion***- Valued diversity of group perspectives and experiences and used these to engage deeply in considering the research topic.
 - b. ***Use program resources***- Demonstrated research knowledge from training and drew upon program staff direction to help narrow RQ.
 - c. ***Focus on building change through smaller questions***- Realization that you can build larger impact through addressing small questions.
 - 4) **Group dynamics**
 - a. ***Group interaction/relationship***- Relationship marked by lack of conflict and enjoyment of each other, but struggled to connect logistically.
 - b. ***Specific roles***- Group casually divided roles based on each other's strengths. All members contributed ideas. Some were leaders, communicators, perspective givers (both narrow and broad).
 - c. ***Unable to overcome logistical challenges***- Poor logistical command led to lack of regularly scheduled and attended meetings.
 - 5) **Sociopolitical development**
 - a. ***University context and diversity***- Awareness and knowledge of how university defines diversity and inclusion and achievements towards those goals.
 - b. ***Commitment to and desire for social change***- Expressions of commitment and strategy to have an impact on social justice issues.
 - 6) **Reflection**
 - a. ***Personality aspects and preferences***- Realizing the limitations and benefit of one's personality, maturity, and independence.
 - b. ***Actions needed to be successful in a project like this in future***- Suggestions to create internal structure, communication, and accountability and to utilize program resources.
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Group 2 Focus Group (Experimental Group)

- 1) **Unusual opportunity**

- a. *Explore own curiosities*- Program was a chance for exploring personal and professional curiosities for its own sake.
 - b. *Exposure to research opportunities*- Path and preparation to future research opportunities outside of a traditional lab setting.
- 2) **Group dynamics**
- a. *Governance*- Created structure which emphasized decision-making and role division in efficient ways. Demonstrated strength in pragmatic problem-solving when challenges arose.
 - b. *Lack of tension and conflict*- Group relationship demonstrated lack of relational tension partly due to group's perceive less emotional salience of topic.
- 3) **Social awareness**
- a. *Nature of food insecurity and how its addressed*- Learned there is lack of data-driven decision making regarding food insecurity and limited university support. Learned about factors which influence food insecurity and its prevalence.
- 4) **Relationship to adults**
- a. *Meeting adult expectation*- Expressions of anxiety and wish for adult guidance in explicit ways to ensure they did not fail to fulfill program expectations. Descriptions of ideas of how to accomplish this.
 - b. *Freedom from adult judgment/gaze*- Positive emotional descriptions of program providing freedom and safety to express oneself and try new things without pressure or fear.
- 5) **Self-reflections**
- a. *Self-awareness of motivation and responsibility*- Hands-off nature of program led to lack of motivation and a realization of one's limitations to work autonomously. At the same time, it also led to motivation to engage in future research and an appreciation of the information of being self-driven.
- 6) **Learn about research**
- a. *Problem solving through research process*- Strategically thought through how to overcome obstacles during the research process and narrowed the research question.
 - b. *Nature of social science research* – Social science research is a valid form of research. It requires cooperation of others and always has a measure of uncertainty.
 - c. *Confidence in doing research*- Increased confidence in engaging in future research and research-related activities.
- 7) **Program evaluation**
- a. *Connection to program*- Felt increased connection to the program and its improvement and felt validated through hearing others' experiences.
 - b. *Group reflection*- Realized the unique strengths and perspectives of their group through interacting with other groups.

Group 3 Focus Group (Experimental Group)

1) **Attraction to program**

- a. *Unique university opportunity*- Chance to engage in a social activity that is also academic and civically-focused at the university; can improve employment preparation.
- 2) **Group dynamics**
 - a. *Group strategies*- Established regular meeting times and strong sense of accountability. This led to a shared workload and cohesion.
 - b. *Group relationship*- Relationship marked by lack of conflict, trust and fairness.
- 3) **Attitudes towards hands-off**
 - a. *Challenge built resilience, independence and pride*- Overcoming challenges led to increased pride and ownership of group work.
 - b. *Program structure and resources*- Training helped to build group dynamic and hands-off approach required them to work together and bond.
- 4) **Social learning**
 - a. *Aspects about food insecurity*- Had lack of familiarity of this topic and learned to think of the issue from a more holistic/systematic approach.
 - b. *PSU/university role*- Learned about PSU's limited involvement in this issue and students' leadership role on the issue compared to other universities.
 - c. *Fostering social change*- Social change begins with defining and researching an issue to spread awareness and convince others to action. Food insecurity may be a venue for student activism.
- 5) **Learn about research**
 - a. *Learn about social science research*- Learned to narrow overarching research question, how to word questions for a survey, and participants' willingness to engage in survey.
- 6) **Role of evaluation**
 - a. *Increased reflection*
 - i. Of groups- Other groups had more challenges with personalities and meeting regularly. Appreciated their group's strengths. *other groups more headstrong, didn't meet, deep appreciation of their group,*
 - ii. Of self- Reflected on one's own growth and learning through interviews and online questions.
 - b. *Supported the research learning*- Learned additional information about how a survey is designed and how evaluation is a form of applied research.
- 7) **Reflection**
 - a. *Awareness, motivation, and responsibility*- Future students should take advantage of program resources and be passionate and committed in their time and effort.

Group 4 Focus Group (Control Group)

- 1) **Diversity of thought and social connection**
 - a. *Desire for connection*- Desired more active discussion, diverse perspectives, and emotional connection within their group.
 - b. *Learn others' perspective on topic*- Learned from interviews that international students have appreciation towards US and more positive attitudes than expected.
- 2) **Group dynamic**
 - a. *Dysfunction*- Met infrequently and had lack of internal organization, roles, and communication. Attributed this to the youthful membership of the group.

3) **Learn about research**

- a. ***Learn about research-*** Gained research skills through conducting interviews. Learned how to improve quality of research question to a feasible level and that social science research is a slow and uncertain process. Interested in pursuing future research.

4) **Unusual nature of program**

- a. ***Unusual nature of program-*** Chance to engage in social justice issues and meet like-minded students. Surprised at the racial/ethnic diversity of the program and the hands-off nature which was a challenge and opportunity.

5) **Developing leadership-** Some members stepped into leadership roles out of necessity and found themselves challenged to balance the (gendered) desire to be assertive and kind. Reflected on how disappointments and uncertainty led to empowerment as they learned to push through without group member involvement.

Group 5 Focus Group (Experimental Group)

1) **Unusual university opportunity-** Program provided a chance to independently drive a research project outside of class and gather professional experience in a low-stakes environment.

2) **Group dynamics**

- a. ***Roles and responsibility-*** Poor internal communication and irregular group meeting participation complicated group dynamics. Roles were informally distributed based on one's way of thinking (broad, pragmatic, critical) and expressions of regret and ideas for how to assign roles was undertaken.
- b. ***Relationship to group members-*** Strained group relationship attributed to missing group members and too large of group size. Active members described group as creative, intelligent, and open-minded.

3) **Independence and motivation-** Expressions of both uncertainty regarding hands-off approach and appreciation. Admission of lack of prioritization along with desire for program to provide explicit guidance for students to follow.

4) **Learning about topic-** Through group discussions and interviews, learned others' perspectives on the topic which led to personal reflections.

5) **YPE-** Deepened reflection about group dynamics and fostered a connection to the program and to group members.

Group 6 Focus Group (Control Group)

1) **Unusual opportunity-** Opportunity for non-science/lab students to pursue hands on group research.

2) **Group dynamics**

- a. ***Group relationship-*** Group marked by confusion over topic and roles and struggled to maintain meetings and communication. Desired democracy and consensus before making decisions.
- b. ***Roles-*** Lack of formal roles along with overlap of roles led to frustration, dropping of tasks, and overreliance on a few members.

- c. ***Responsibility and motivation***- Simultaneous recognition that group did not take advantage of program resources while desiring more mandatory program structures and penalties to overcome low group motivation. Recognition of need for personal accountability and commitment.
 - 3) **Learning about research process**- Learning stunted by lack of carrying out data collection. Lengthy process of topic selection.
 - 4) **Leadership development and self awareness**- Awareness of personal shortcomings and/or how one comes across in group settings. Learned importance of persistence and maintaining a Plan B.
 - 5) **Learn about topic through awareness raising**- Increased personal awareness of issue and desire to use UNESCO platform to spread awareness.
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Group 7 Focus Group (Experimental Group)

- 1) **Program factors**
 - a. ***Attraction to program***- Program provided an opportunity to learn about international topics and gain hands on experience in research.
 - b. ***Surprise***- Expressions of surprise for younger participants in the honors college.
- 2) **Group dynamics**
 - a. ***Communication and respect***- Group was marked by an ability to effectively brainstorm and engage in critical thought with initial communication challenges during meetings. Respect for group members' motivation and drive and appreciation that there are like-minded students at Penn State.
- 3) **Structure**
 - a. ***Reactions to hands off***- Expressions of both positive and negative reactions to the hands-off approach of the program. Negative expressions included anxiety, a desire for more explicit instruction from program staff, and assigned group roles. Positive expressions included an ability to learn through challenge, work for own passion, and be prepared for the real world.
- 4) **Sociopolitical awareness**
 - a. ***Awareness and personal reflection***- Learning that disempowerment can be subtle and empowerment can be defined in many ways led to personal reflections on the topic.
- 5) **Personal learning**
 - a. ***Personal learning***- Participants should have personal commitment and passion.
 - b. ***Research learning***- Learned how social research can be incorporated into many fields of study as well as the importance of qualitative data. Learned how to work in a group and communicate.
- 6) **YPE reinforce**- Reflected on group dynamics and the importance of the topic they chose.

Appendix H

Group 1- Stage 3 Results

Variable	Mean Diff	St. Dev	N
Confid	-.600	3.507	5
SSyoung	.000	1.095	6
SSadult	-.500	1.975	6
Attach	-1.333	5.538	6
CESE	-.800	4.868	5
Influ	-1.667	3.061	6
PartCiv	-.833	2.137	6
PartCom	-1.333	2.875	6
Emp	-1.000	.894	6
CC	-1.167	3.869	6

Group 2- Stage 3 results

Variable	Mean Diff	St. Dev	N
Confid	.800	1.814	10
SSyoung	1.800	1.619	10
SSadult	.400	2.757	10
Attach	-1.000	5.055	10
CESE	2.000	3.266	10
Influ	1.400	3.534	10
PartCiv	.400	1.578	10
PartCom	-.100	2.183	10
Emp	-.222	2.863	9
CC	.700	3.268	10

Group 3- Stage 3 results

Variable	Mean Diff	St. Dev	N
Confid	3.750	3.284	8
SSyoung	.000	.943	10
SSadult	-.100	2.424	10
Attach	1.600	5.103	10
CESE	5.500	5.451	8
Influ	2.000	2.708	10
PartCiv	1.200	2.098	10
PartCom	1.700	1.947	10
Emp	1.700	3.889	10
CC	.000	3.197	10

Group 4- Stage 3 results

Variable	Mean Diff	St. Dev	N
Confid	1.750	2.500	4
SSyoung	1.200	2.280	5
SSadult	1.400	1.140	5
Attach	.200	8.643	5
CESE	4.000	3.559	4
Influ	-.600	6.348	5
PartCiv	1.600	1.673	5
PartCom	1.400	2.510	5
Emp	2.800	3.633	5

CC	1.800	2.387	5
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Group 5- Stage 3 results

Variable	Mean Diff	St. Dev	N
Confid	2.875	3.682	8
SSyoung	.300	2.541	10
SSadult	-.500	3.206	10
Attach	1.778	3.563	9
CESE	1.600	2.716	10
Influ	.900	3.178	10
PartCiv	.800	1.475	10
PartCom	.200	1.476	10
Emp	2.400	3.718	10
CC	1.200	1.751	10

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Group 6- Stage 3 results

Variable	Mean Diff	St. Dev	N
Confid	.556	4.531	9
SSyoung	.111	2.147	9
SSadult	-.222	3.153	9
Attach	-1.500	8.124	8
CESE	.667	4.301	9
Influ	1.625	3.021	8
PartCiv	.556	1.810	9
PartCom	-.333	2.062	9
Emp	1.625	3.962	8
CC	.556	4.126	9

Group 7- Stage 3 results

Variable	Mean Diff	St. Dev	N
Confid	4.625	3.889	8
SSyoung	.625	2.504	8
SSadult	.500	2.563	8
Attach	1.375	5.655	8
CESE	.250	4.062	8
Influ	.750	2.712	8
PartCiv	.875	3.399	8
PartCom	1.375	2.504	8
Emp	2.143	4.298	7
CC	1.750	3.535	8

Group 1- SEV

Variable	Mean Diff	St. Dev	N
Individual	-4.750	8.500	4
Relational	.667	4.761	6
Community	-3.500	8.385	6

Group 2- SEV

Variable	Mean Diff	St. Dev	N
Individual	3.667	4.387	9
Relational	3.600	6.931	10
Community	-.700	7.514	10

Group 3- SEV

Variable	Mean Diff	St. Dev	N
Individual	6.333	7.146	6
Relational	1.900	4.999	10
Community	4.500	6.078	10

Group 4- SEV

Variable	Mean Diff	St. Dev	N
Individual	13.333	6.110	3
Relational	2.000	8.944	5
Community	3.200	12.050	5

Group 5- SEV

Variable	Mean Diff	St. Dev	N
Individual	7.625	7.539	8
Relational	.700	7.973	10
Community	3.111	5.732	9

Group 6- SEV

Variable	Mean Diff	St. Dev	N
Individual	3.375	12.817	8
Relational	1.500	6.740	8
Community	-1.250	10.457	8

Group 7 - SEV

Variable	Mean Diff	St. Dev	N
Individual	7.714	9.013	7
Relational	1.875	6.402	8
Community	3.625	7.520	8

VITAE

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EDUCATION

Ph.D. Candidate. Agricultural and Extension Education, The Pennsylvania State University. 2015-2018. [Expected Graduation August 2018].

- Areas of specialization: 1) Research Design and Methodology, 2) Statistical Theory and Analysis, and 3) International and Community Development Theory and Practice
- Dissertation Title: “Examining the Impacts of Youth Participatory Evaluation Methods on a Youth Participatory Action Research Setting.”

M.D.P. Master of Sustainable Development Practice, University of Florida. 2010-2012.

- Area of specialization: Monitoring and Evaluation Methods
- Certificate in Tropical Conservation and Development
- Project Title: “Creating Sustainable Development Indicators: Construction of an Adaptive Capacity Index for Rural Botswana.”

B.S. Family, Youth and Community Sciences, University of Florida. 2006-2010. Suma Cum Laude.

- Honor Thesis: “Characteristics of Students Interested in Working in Another Country.”
- Minors: Spanish, Organization Leadership for Nonprofits