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The Youth Conservation Corps experience: strategies for the post-pandemic classroom

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Dissertation

**THE YOUTH CONSERVATION CORPS EXPERIENCE:
STRATEGIES FOR THE POST-PANDEMIC CLASSROOM**

by

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“Education is not an affair of ‘telling,’ and being told, but an active and constructive process.” – John Dewey, The Middle Works

DEDICATION

I would like to dedicate this work to my grandmother, Theane Corsones. She inspired me to face every challenge with perseverance, grace, and good humor. Thank you for always believing in me and for showing me how to live life to its fullest.

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ABSTRACT

The Vermont Youth Conservation Corps (VYCC) is an organization that utilizes outdoor, project-based learning and critical service learning techniques to support young people in completing large-scale conservation and farming projects statewide. This study aimed to examine the perceived mental health effects of participating in the VYCC, the strategies in the organization that may have led to those changes, and feasible ways for educators to bring those methods into the post-pandemic classroom. Now is an important time to study youth organizations that may have already been having a positive effect on youth mental health, especially because of the negative effect of the Covid-19 pandemic on young people's mental health.

A phenomenological qualitative research study was used to examine the perceived mental health effects of the VYCC, the aspects of the organization that led to those changes, and the feasibility of bringing these strategies into the classroom setting. This researcher interviewed five first-time participants in the VYCC throughout their summer experiences, focusing on their perceived mental health and whether they reported changes throughout the summer, as well as the programming that could have led to those changes. This researcher interviewed five recent alumni of the VYCC who currently or recently

worked with young people about the lessons or strategies that they took from their VYCC experience into their current or recent work with young people.

The study revealed the following results in terms of the VYCC's perceived effects on mental health, what may have led to those changes, and feasible strategies for the post-pandemic classroom:

- Most VYCC participants in this study reported an increase in confidence and self-efficacy, particularly because of the project-based nature of the work.
- Participants reported decreases in perceived anxiety from the project-based, outdoor nature of the work and the supportive relationships with crew members.
- The nature of the work in the VYCC, in terms of its impact on local communities and tangible results led to increased feelings of joy, pride, satisfaction, and accomplishment.
- Working with people of varying abilities led to both increased stress and feelings of connectedness and empathy for others.
- Negative feedback, breakdowns in communication, and pressure to lead those with varying needs and accomplish projects without feeling properly supported led to feelings of frustration, stress, burnout, and increased anxiety.
- Participants in this study examined their own strengths, personalities, and self-image as a result of the reflective nature of the program.

The following results relate to the feasibility of bringing strategies or lessons from the VYCC into the classroom:

- The VYCC inspired participants to teach their own students that the process of learning was just as important as the end product, and that mistakes were opportunities for growth in the learning process.
- The VYCC instilled a strengths-based perspective in alumni participants, and they found that maintaining that perspective in the classroom was beneficial to their students.
- The VYCC crew experience helped participants to view others as holistic beings, and inspired them to get to know their students on a personal level in order to make connections and to build a culture of belonging in their classrooms.
- Alumni participants learned that not every style of communication works well with every student; it is important to try various communication styles with students who learn differently.
- The alumni reported that it was important for teachers to instill in their students a sense of joy of discovery and praise curiosity, encouraging them to celebrate when they learn something new or see something in a different way.
- Alumni participants found that the VYCC experience helped them to learn they should prioritize guiding students in discovering their passions and exploring unique pathways to achieving their own definitions of success.

The findings in this study were consistent with the literature on project-based learning, outdoor education, and critical service learning's positive effects on intrinsic motivation, student engagement, and deeper learning (Einfeld et al., 2008; Grant, 2002;

James & Williams, 2017; Kokatsaki et al., 2016; Krsmanovic, 2021; Mackenzie et al., 2017; Myers-Lipton, 1998; Smith & Walsh, 2019). The findings in this study added to the limited literature on the Youth Conservation Corps experience, shining light on its perceived effects on the participants in this study's mental health (Creed et al., 1996; Dickerson, 1977; Driver & Johnson, 1984; Hamilton & Stewart, 1978; Sayegh et al., 2019). The study indicated the positive effects that project-based learning (PBL) can have on perceived anxiety and self-efficacy of participants in this study, which adds to the research on the mental health effects of PBL (Erdem, 2012; Miguel & Carney, 2022; Samsudin et al., 2020; Shin, 2018). This research also uncovered multiple strategies and lessons from the VYCC model that have already been successfully used in the classroom setting.

PREFACE

I can feel the chill in my body as I slowly wake out of my deep slumber. My back aches as I let out a long yawn and stretch out as far as I can reach without waking my “roommate” in my two-person tent. It is only the fifth day of my stint in the Vermont Youth Conservation Corps, but my body feels like I have been at it for months. I slog over to the entrance to the tent and sit down to put on my work boots. As I slip my foot into the boot, I hear a devastating *squelch* as my foot hits the ice-cold water that had collected in it overnight. *Why did I not tighten the rain fly over them?* It was going to be a long day.

I can assure you that particular morning, I was not thinking about how I would really like to revisit this experience in the future and write an entire dissertation on it. I was just thinking about getting through the day. It was not until the end of my VYCC experience that I fully appreciated the effect it had on me both personally and professionally. I felt less anxious and more at peace. I was more confident in my abilities, and I felt inspired to pursue a profession in which I could serve my community through education.

It is not until I entered the Boston University Ed.D. program that I considered revisiting the VYCC experience, this time to see what effects it may have on the perceived mental health of first-time participants, as well as how alumni of the program who now work with young people, such as myself, use strategies and lessons from the VYCC in their own places of work. These alumni and first-time participants also shared stories of wet boots, searing hot sun, and painstaking work, but something in that work

profoundly affected them. In writing this dissertation, I hoped to uncover that effect and discuss the implications for the post-pandemic classroom.

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LIST OF ABBREVIATIONS

BU	Boston University
CCC	Civilian Conservation Corps
IRB	Institutional Review Board
PBL	Project-Based Learning
VYCC	Vermont Youth Conservation Corps
YCC	Youth Conservation Corps

GLOSSARY

Constructionism: an educational method, descending from constructivism, that involves learners creating physical artifacts in order to practice what they have learned and to experience tangible outcomes that demonstrate learners' engagement in the process of knowledge construction; considered "learning by making" (Alanazi, 2016; Papert & Harel, 1991).

Constructivism: the idea that each learner constructs knowledge for themselves and that each learner constructs meaning as he or she learns. Its pedagogical implications include: (1) a more learner-centered approach rather than focusing on the subject or learning target and (2) the assumption that there is no knowledge independent of the learner's construction of knowledge based on his/her personal experience (Hein, 1991).

Critical Service Learning: a practice that engages participants in acts of service while integrating that experience with thoughtful introduction, analysis, and discussion on the underlying issues at play that lead to the problems and the need for the acts of service (Mitchell, 2007).

Experiential Education: a teaching philosophy in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities (Association for Experiential Education, 2021).

Outdoor Education: This practice is composed of the following six primary principles.

It: (1) is a method for learning; (2) is experiential; (3) takes place primarily in the outdoors; (4) requires use of all senses and domains; (5) is based upon interdisciplinary curriculum matter; and (6) is a matter of relationships involving people and natural resources (Priest, 1986).

Project-Based Learning: an instructional method that involves authentic learning tasks attuned to the learner's personal interest. The critical components are (1) a driving question or problem and (2) a process that leads to the production of one or more artifacts that demonstrate mastery of one or more learning targets (Grant, 2002; Grant, 2011).

Self-Efficacy: an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977).

CHAPTER ONE

INTRODUCTION

Rationale for the Study

Experts predict that the effects of physical distancing, quarantine, socio-economic factors, school closures and fear of infection that have afflicted youth since the onset of the Covid-19 pandemic will have a detrimental effect on their mental health for years to come. Data already show a significant spike in cases of anxiety and depression among youth since measures were put in place to prevent the spread of the Covid-19 pandemic. There has been a particularly significant increase in anxiety, depression, and Post-Traumatic Stress Disorder among American youth since the onset of the pandemic (Cielo et al., 2021; Child Trends, 2021; Hawes et al., 2021; Kauhanen et al., 2022; Liu et al., 2020; Racine et al., 2021; Tsamakidis, 2021).

Closing schools, remote learning, fear of infection and physical distancing have disrupted children's basic routines and expectations and left many of them feeling isolated and anxious about the future (Goyal & Gupta, 2020; Hawke et al., 2020; Knopf, 2020). Schools have opened back up for children, and educational leaders are searching for strategies to support these students who have undergone the trauma of living through a pandemic and feeling isolated from their peers and the world around them.

It is important, especially during this time in history, to research educational organizations that may already have effects on youth mental health. In this study, mental health is defined as a person's psychological and emotional well-being, which is

positively affected by the satisfaction of personal, relational, and collective needs (APA, 2023; Prilleltensky, 2008). Positive relationships and the feeling of belonging in a community signal to the brain a sense of psychological and social safety that promotes positive mental health and allows for deeper learning to occur (Hammond, 2015).

This research study focused on an understudied organization that incorporates outdoor education, project-based learning, and critical service learning, all principles that have been shown to have a positive effect on youth mental health, and then research the feasibility of bringing this organization's effective programming into the post-pandemic classroom. This research study focused on the mental health effects of participating in the Vermont Youth Conservation Corps (VYCC), a branch of the Youth Conservation Corps (YCC) national network.

Outdoor and experiential learning could help improve the bleak state of mental health among students in preK–12 schools who have undergone the trauma of living through a pandemic. Outdoor and experiential learning has been found to improve youth mental health, lowering anxiety and depression and increasing feelings of connectedness and belonging, especially among students who struggle in the traditional classroom setting (Davies et al., 2020; James & Williams, 2017; Mackenzie et al., 2017; Mutz & Müller, 2016).

Outdoor education has had various definitions throughout history, but this study uses researcher Simon Priest's comprehensive and relationship-based definition from his article "Redefining Outdoor Education: A Matter of Many Relationships." Outdoor education: (1) is a method for learning; (2) is experiential; (3) takes place primarily in the

outdoors; (4) requires use of all senses and domains; (5) is based upon interdisciplinary curriculum matter; and (6) is a matter of relationships involving people and natural resources (Priest, 1986). The Association for Experiential Education defines experiential education as “a teaching philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities” (Association for Experiential Education, 2021).

Outdoor, experiential education has historically been beneficial for young people’s mental health, but during this time of recovery from the adverse mental health effects of the pandemic, it becomes imperative to examine the principles of these programs that could help young people (Smith & Walsh, 2019).

This research study focused on an understudied outdoor educational program that incorporates aspects of outdoor learning, project-based learning, and service learning: the Vermont Youth Conservation Corps. There have been a few studies on the Youth Conservation Corps experience that had to do with its perceived benefits and effect on self-concept (Dickerson, 1977; Driver & Johnson, 1984), as well as more recent studies on the YCC experience in terms of its effects on antisocial behavior and self-esteem (Creed et al., 1996; Sayegh et al., 2019), but overall the body of research on the Youth Corps network, particularly in terms of its effect on youth mental health, is limited.

The mission of the VYCC is to “take action and build community by working and learning together with the land.” It was founded in 1985 as a program of the Vermont Department of Forests, Parks and Recreation, with funding from the Vermont State

Legislature. More than 6,000 young people have worked for the VYCC, and each year the VYCC employs over 250 young people between the ages of 15 and 26. VYCC crew members work closely with a tight-knit group of young people to complete meaningful projects that make a difference in the local community and participate in educational programming with an emphasis on conservation and preserving the natural world (Vermont Youth Conservation Corps, 2023).

The VYCC has both conservation crews and farm crews. On the conservation crews, employees work with a group of other young people to complete large-scale conservation projects across the state of Vermont. They also participate in team building exercises and daily chores, such as camp set-up, cooking, cleaning, and fire-starting.

Those on the farm crew are trained in farming techniques and run an organic farm at the VYCC headquarters. The food from the VYCC farm is sold at the farm stand, fed to members of the VYCC, and donated to the Health Care Share, which provides fresh produce to food insecure areas throughout the state of Vermont and one in New Hampshire. (Vermont Youth Conservation Corps, 2023).

The VYCC's founders took inspiration from the Civilian Conservation Crew (CCC) model created as part of Franklin Delano Roosevelt's "New Deal" policies during the Great Depression. The CCC gave jobs to three million unemployed men between the ages of 17 and 23 nationwide, mostly in forest management, conservation projects, construction projects, and the development of state and national parks. The men in the CCC could earn a paycheck while using their skills to conserve the natural world and to find ways to bring people into nature. Those in the CCC lived and worked together, some

establishing life-long friendships. Despite their strict schedules, the young men also found time after work to take classes to continue their education (National Park Service, 2015). The VYCC mirrors these same principles of environmental stewardship, relationship-building, and continual education.

This research study was a qualitative phenomenological study of the Vermont Youth Conservation Corps to uncover the shared experience of crew members with a focus on perceived mental health and the feasibility of transferring the strategies used in the VYCC to the classroom.

Theoretical Foundation

The Vermont Youth Conservation Corps incorporates outdoor educational practices, critical service learning, and project-based learning into its mission and programming. Each of these experiential learning practices have principles that have been found to improve youth mental health, boost intrinsic motivation, and promote deeper learning in the classroom (Caldas et al., 2016; Davies et al., 2020; Einfeld et al., 2008; Grant, 2002; James & Williams, 2017; Kokatsaki et al., 2016; Krsmanovic, 2021; Mackenzie et al., 2017; Mutz & Müller, 2016; Myers-Lipton, 1998; Smith & Walsh, 2019).

Researchers, educators, and policy makers have highlighted the need for students to build “21st century skills,” since the turn of the century, these being skills that could help prepare students for the “knowledge economy,” so as to be successful in the ever-

changing job market (Darling-Hammond & Oakes; Sawyer, 2006). The main skills include critical thinking, the ability to apply knowledge across disciplines and to real world situations, and interpersonal skills that promote effective collaboration (Darling-Hammond et al., 2020). Students need to develop mindsets that allow them to take initiative, persevere through challenges, and become independent, active learners (Hammond, 2020; Huberman et al., 2014). To strive for “deeper learning” in the classroom means to build critical understanding of core academic content, and effectively applying that understanding to new problems and scenarios, all while effectively utilizing collaborative, interpersonal, and self-regulation skills (Huberman et al., 2020).

Supportive environments and productive instructional strategies are paramount to students’ deeper learning. The environment for learning should be a caring, culturally responsive community where students feel valued and physically and emotionally safe (Huberman et al., 2020). The strategies of building positive relationships and creating a culture of belonging in the classroom are closely related to the educational pedagogy of culturally responsive teaching.

In Zaretta Hammond’s book *Culturally Responsive Teaching and the Brain*, she emphasizes the importance of “learning partnerships” between the teacher and the students in the classroom. She asserted, “It becomes imperative to understand how to build positive social relationships that signal to the brain a sense of physical, psychological and social safety so that learning is possible” (Hammond, 2015). Hammond’s work is rooted in the theory of instruction “culturally responsive teaching,” which contends that teaching is most effective when environmental factors such as

cultural backgrounds, prior experiences, racial and ethnic identities, and local community settings are included in its implementation (Gay, 2018). Hammond also describes what is called “liberatory education,” which promotes deep learning in the classroom at a faster rate. It is when students lead their own learning, going from dependent to independent learners. Its methods are informed by the science of learning and culturally responsive practice.

Along with using culturally responsive practices, deeper learning is also driven by productive instructional strategies, which include purposeful work that builds on students’ prior knowledge and actively engages them in learning transferable skills and critical concepts (Darling-Hammond et al., 2020). Students engage in deeper learning when the “skill, will, and thrill,” are all present, these being the prior knowledge, disposition towards learning, and the intrinsic motivation (Hattie & Donoghue, 2016; Osher et al., 2014).

Project-based learning has been found to increase intrinsic motivation, engagement, and deep learning in classrooms (Grant, 2002; Kokatsaki et al., 2016; Krsmanovic, 2021). The learning process in a Youth Conservation Corps experience reflects the important principles of project-based learning (PBL). The common features of project-based learning include an introduction to the activity, a driving question for the project, a process that leads to the creation of one or more artifacts, the effective use of resources, scaffolding that allows learners to monitor their progress, collaboration between peers, and opportunities for reflection (Grant, 2002). This student-centered approach involves critical thinking, problem-solving, and the ability to apply learning to

novel situations. An important aspect of PBL that must not be overlooked, especially for the purpose of this experiment, is that both the driving question and the learner-created artifact have an authentic connection to the community (Miller & Krajcik, 2019).

Completing a project for the Vermont Youth Conservation Corps involves these steps and principles, making it a program in which participants engage in project-based learning. For example, a crew this researcher was a part of in the summer of 2015 was tasked with remediating the problem of water pollution in the Lamoille River. During heavy rainfall, fertilizer that contained nitrogen was running off into the Lamoille River, which eventually flowed into Lake Champlain. The nitrogen from the fertilizer led to extreme algal bloom, which choked out native species in Lake Champlain. This researcher's crew knew the problem, and it was the crew's job to answer the question: How do we help deter the algal bloom and protect the native species? This researcher's crew worked with local community leaders and environmental experts to plan the project.

The crew worked to create water filtration systems and ditches in order to filter the water run-off and prevent the nitrogen from entering the river. This researcher's crew planned out each of the steps for the project, and split up into roles. Continually seeking out feedback from community partners, the crew would adjust and make changes in the plan when necessary. After the completion of the project, there was time for reflection on the impact of the work and how similar filtration systems could be implemented throughout the state. This is a typical model for a VYCC project, and it follows each of the steps for an activity to be considered project-based learning.

PBL as a pedagogical style is rooted in the constructivist theory of learning.

Philosopher and education reformer John Dewey contended that deep understanding can only occur when learners actively construct meaning from their interactions with the world around them. Therefore, authentic learning most often occurs in real-world settings where students have individual agency over their learning, rather than passively absorbing information in a restrictive setting (Blumenfeld, 2006; Hein, 1991; Krajcik & Ültanır, 2011). When students learn in an outdoor setting, they are less restricted and it allows them to explore their deeper connections with the natural world (Habibe, 2014). Outdoor education inspires students to learn about the relationship between nature, culture, and society, and the connections that they make between those three realms (Ratinen et al., 2021). Students who participate in outdoor learning tend to report higher feelings of freedom, intrinsic motivation, and engagement with the activities (Marchant, 2019).

Participating in a Youth Conservation Corps is more than just having the freedom of learning outdoors, though; it also involves group project-based learning, a branch of learning experiences that is also rooted in constructivist epistemology and learning sciences. Project-based learning is a student-centered form of instruction that involves students tackling a real-world issue or question using inquiry, collaboration, and problem-solving skills (Kokatsaki et al., 2016).

In order for students to have the most impactful learning experiences, they should be intrinsically motivated, see themselves as a capable learner who can attain their goals, and see mistakes as learning opportunities instead of failures (Osher et al., 2006).

Constructivist Jean Piaget asserted that humans cannot be given information—they must

construct their own knowledge based on their experiences in order to have a deeper learning experience (Ültanır, 2011). Each of these characteristics comes into play when a student is engaging in group project-based learning.

Constructionism in project-based learning takes constructivist learning a step further. It was developed by Jean Piaget's student, Seymour Papert (Alanazi, 2016). When learners participate in constructionism, they not only gain new knowledge through personal inquiry and investigation, but, in the process, they also develop an artifact that holds personal significance or solves a problem in their community. Those who promote constructionism posit that, by creating this artifact that can be shared with others, the learner is more likely to be engaged in the learning process. The process is learner-centered, and the curriculum is individualized, increasing deep learning and engagement (Alanazi, 2016; Grant, 2002).

In the Youth Conservation Corps, young people engage in project-based learning through working with each other as well as with community members to solve real-world environmental problems (Price et al., 2011). PBL involves seeing mistakes as learning opportunities, and learning from failure is embedded in the "grit and resiliency" principle of the VYCC program (VYCC, 2023). Crew members not only participate in the problem-solving aspect of project-based learning; they also collaborate with their peers in meaningful ways. There is power in the social interaction in learning. The learning experience leaves more of an impact when students and community members are working together to create something, even when it is just a shared understanding or experience (Osher et al., 2006).

One aspect that sets the Vermont Youth Conservation Corps from other Youth Conservation Corps programs is its emphasis on self-reflection on learning and growth. The project-based learning in the Vermont Youth Conservation Corps promotes metacognition and the development of life-long learners. Metacognition is the ability for a person to reflect on their own learning process and thinking. In the VYCC, participants are encouraged to reflect on their own understanding of what they are doing, and what impact it will have. Crew leaders ask their crew members questions like, “Why are you digging that ditch?” “Why are you giving the bridge that percent grade?” “Why are you putting the campsite here?” Eventually the process changes from the crew leader asking these questions to the crew members asking themselves those questions. Crew members are encouraged to regularly reflect on their thinking and adjust their actions, if necessary. At the end of their project, they reflect on what went well, what could be improved, and what they would do differently next time. Learning theorists have found that metacognition leads to students taking control of the learning process and becoming lifelong learners themselves (Capraro et al., 2013).

Although the Youth Corps network varies from state to state, each Youth Corps organization has the common mission of engaging crew members in programming that combines community service, workplace development, and education (Price, 2011). Being a part of the Youth Corps network involves completing projects, mostly environmentally focused, and serving one’s community; crew members engage in some form of project-based learning, as well as service learning.

Participation in service learning connects all those who participated in the Youth

Conservation Corps network (Price et al., 2011). As defined by the National Service Clearing House, service learning is a strategy that combines community service with instruction and reflection in order to develop civic responsibility and to strengthen communities (Bandy, 2016). Service learning has been found to have a positive impact on academic learning, gives students a greater sense of personal efficacy, and improves students' ability to make real-world connections (Bandy, 2016).

Service learning has been used inside and outside of the classroom to connect theory to practice, as well as to develop interpersonal skills. Now researchers are also examining its effects on participants' civic engagement and their commitment to social justice. Prentice (2007) points out that people tend to define civic engagement strictly as political involvement, but it should really be more broadly defined as "active participation in the public life of a community in an informed, committed, and constructive manner, with a focus on the common good" (Prentice, 2007). In Prentice's study, she found that community college students' participation in service learning seemed to increase their civic engagement, when understood using her conception of the term (Prentice, 2007). Service learning can also play a role in building civic capacity, or knowing how to apply knowledge to solve community problems. Service learning, differing from charity, involves working in solidarity with a community and viewing situations, people, and organizations with new perspectives and with renewed empathy. Building civic capacity involves exploring the connections between academic knowledge, experience in local communities, and far-reaching political and social issues (Lewis, 2009).

Myers-Lipton (1998) found in his quasi-experimental study that there was a strong connection between college-aged students' participation in service learning and their sense of civic responsibility. Those who participated in service learning reported higher increases in civic responsibility, placing the locus of control on the society rather than the individual, and civic behavior, as compared to the control group that did not participate in service-based learning. Researchers in this study concluded that service learning led to an increase in socialization among participants, resulting in a new set of attitudes and values (Myers-Lipton, 1998).

There is also a clear connection between participation in service learning and commitment to social justice. Einfeld et al. (2008) completed a qualitative study to examine any connections between service learning and participants' perspectives on social justice, cultural competency, and civic engagement. After participating in an AmeriCorps service learning program, college-aged students shared the impact of their experiences. The study uncovered common themes, including increased awareness of social inequality, a growing sense of personal empowerment, and an increase in multicultural skills and civic engagement, as defined as a commitment to lending a hand in one's community (Einfeld et al., 2008). Service learning has also been found to increase social awareness, personal insight, and cognitive development (Yorio & Yi, 2012). Unfortunately, some service learning programs seem to be "band-aids" to systemic issues, and participants fail to recognize that they cannot fix problems of equality through a short volunteer program.

The VYCC seems to take service learning a step further, its projects actually

falling under the umbrella of what is referred to as “critical service learning.” This practice engages participants in acts of service while integrating that experience with thoughtful introduction, analysis, and discussion on the underlying issues at play that lead to the problems in the first place (Mitchell, 2007). Participants in the VYCC are encouraged to understand the “why” behind their projects and to learn and discuss the underlying issues that led to the need for their projects.

At its core, service learning is a relationship-based and reciprocal experience, and participants in Einfeld’s (2008) study reported increased empathy for their clients over the course of their AmeriCorps experience and a broader worldview. Although participants reported personal growth, the majority of participants did not report an increase in commitment to actively pursue social change for social justice. Researchers pointed out the importance of the teacher in service learning to emphasize the connections between social inequality and systemic problems. In order for service learning to be most effective in promoting civic engagement and a commitment to social justice, it should not be a one-time event, but instead a continuous endeavor (Einfeld et al., 2008).

Service learning programs have been found to be most effective when participants have a sense of autonomy and when they are given the time and space to reflect on the impact of their service work (Levesque-Bristol et al., 2010). Each of these factors leads to an increase in intrinsic motivation among participants, as well as an increase in cognitive learning. With these factors in place, participants felt higher levels of self-efficacy and stronger connections with those they were serving (Levesque-Bristol et al., 2010).

The Vermont Youth Conservation Corps is an organization within the Youth Conservation Corps network that is rooted in constructivist learning, incorporates project-based learning, and promotes critical service learning and engagement with the local community. Crew members must work with other young people to engage in outdoor project-based learning in order to solve real world environmental problems affecting local communities (Price et al., 2011). This research study sought to better understand each of these aspects of the VYCC, what effect they have on the perceived mental health of participants, and how these parts of the programming can be brought into the classroom.

Research Questions

1. How does participating in the VYCC affect participants' perceived mental health?
2. What aspects of the VYCC lead to perceived changes in participants' mental health?
3. What aspects of the VYCC can feasibly be brought into the classroom setting?

Plan of Inquiry

This research study was a qualitative phenomenological study of the Vermont Youth Conservation Corps experience, with a focus on its effects on participants' perceived mental health and the transferability of strategies used in the VYCC to the classroom. The study involved semi-structured interviews with two groups of

participants: five recent alumni of the VYCC who worked regularly with young people in their current or recent professions and five first-time participants in the VYCC.

The interviews with alumni of the VYCC focused on the third research question, with the interview questions focusing on the feasibility of bringing strategies from the VYCC into the classroom. These roughly hour-long interviews took place over Zoom in the spring of 2022.

The first-time participants were interviewed three times throughout their summer experiences with the VYCC, and the interviews focused on whether their perceived mental health changed. These interviews took place throughout the summer of 2022. They were first interviewed at the start of the summer in June at the VYCC Headquarters in Richmond, Vermont for about 30 minutes. They were then interviewed for roughly one hour at their work sites halfway through the summer in mid-July. The final interviews came at the end of the summer in August, and were roughly one hour. Four of those interviews were at the VYCC headquarters in-person. One of the interviews was over the phone, since one of the participants was traveling and could not meet at the headquarters.

After transcribing each of the interviews using Otter AI software, this researcher reread the interviews, and wrote down common themes that showed up in multiple interviews that related to the research questions. This researcher then used the Quirkos software to code each of the interviews and to sort them into the common theme categories. The results are discussed in chapter four of this dissertation.

Significance of Study

During the next few years, teachers will be welcoming students back into their classrooms who have undergone an unprecedented ordeal. Students have dealt with isolation from their peers, heightened anxiety and depression, and increased pessimism about their future hopes and dreams (Goyal & Gupta, 2020; Hawke et al., 2020; Knopf, 2020). Now is an opportune time to study youth organizations that may already have positive effects on young people's perceived mental health. The goal of this study was to uncover the mental health effects of the VYCC, the aspects of the programming that may have led to those changes, and how programming and strategies used in the VYCC could feasibly be brought into the classroom setting.

Currently, there is little research that focuses on how participation in a youth conservation crew can affect mental health. Studies have examined how participation in a youth conservation corps affects a participant's environmental awareness, work habits, future careers, and connection to the natural world (Chipkin, 2011; Driver & Johnson, 1984; Duerden, Edwards & Lizzo 2015), but little research has been done on how youth conservation corps' programming can affect participants' mental health (Creed et al., 1996; Sayegh et al., 2019).

Research studies have evaluated the effectiveness of outward bound programs, adventure therapy, and outdoor experiential learning, but little research has been done on the youth conservation corps experience's effects on participants' mental health (Caldas et al., 2016; Davies et al., 2020; James & Williams, 2017; Mutz & Müller, 2016; Tucker

et al., 202; Russell, 2000). No research studies have examined the feasibility of bringing strategies from a YCC program into the classroom setting. This study addressed each of these understudied research questions.

The VYCC incorporates project-based learning, outdoor education, and critical service learning into its programming. Outdoor education programs have been found to promote student engagement, increase levels of self-efficacy, and decrease levels of anxiety and stress among participants (Caldas et al., 2016; James & Williams, 2017; Mackenzie et al., 2017; Smith & Walsh, 2019). Project-based learning has been found to increase intrinsic motivation, engagement, and deep learning in classrooms (Grant, 2002; Kokatsaki et al., 2016; Krsmanovic, 2021). Critical service learning has also been found to increase learning, as well as to promote civic engagement (Einfeld et al., 2008; Myers-Lipton, 1998). There have not been many studies on how participating in project-based learning and critical service learning affects participants' general mental health, and so this study aimed to address that gap in the body of research around PBL and critical service learning.

CHAPTER TWO

REVIEW OF LITERATURE

How has the Covid-19 pandemic affected youth mental health?

The Covid-19 pandemic has drastically altered young people's everyday lives and, even in the aftermath of the pandemic, the road to recovery is long and full of complications. Since the onset of the pandemic, children have grappled with remote learning, social distancing, isolation, fear of infection, and, for some, loss of loved ones. These factors have led to increases in loneliness among youth, along with higher rates of anxiety, depression, and Post-Traumatic Stress Disorder (PTSD) (Cielo et al., 2021; Liu et al., 2020; Goyal & Gupta, 2020; Graupensperger, 2022; Hawke et al., 2020; Hawes et al., 2021; Horigian et al., 2021; Knopf, 2020; Nearchou et al., 2020; Racine et al., 2021; Tsamakis, 2021).

Researcher Alison Knopf looked at articles published between 1946 and 2020 on the effects of quarantine and social isolation on youth mental health. Research on prior pandemics that required quarantine found that children who experienced enforced isolation and quarantine were five times more likely to require mental health services and have higher levels of PTSD than those who did not (Knopf, 2020; Tsamakis, 2021).

Historically, school closures and isolation have led to increased mental health problems among young people, and experts are already seeing the effects of the Covid-19 pandemic on children's mental health. School closures have affected 862 million children and young people worldwide, half of the global student population (Nearchou, 2020).

Being out of school leads to an increase in loneliness among youth that is not necessarily helped by phones or other forms of communication (Horigian et al., 2021; Nearchou, 2020). In fact, the rise in social media use can lead to pathological internet use, increased cyberbullying, and exacerbated mental health issues like anxiety and depression (Wasserman et al., 2020).

Data already shows a significant spike in cases of anxiety and depression among youth since the onset of the Covid-19 pandemic, and children are found to be especially vulnerable to negative mental health effects (Adegboye et al., 2021; Hawes et al., 2021; Kauhanen et al., 2022; Tsamakis, 2021; Zhou, 2020). The restrictions put in place to slow the spread of the Covid-19 pandemic disrupted the average child's routine, leading to an increase in anxiety, irritability, and developmental issues (Goyal & Gupta, 2020).

Researchers performed a meta-analysis study on 29 studies that included data from 80,879 participants who were 18 or younger from around the world in order to estimate the effect that the pandemic had on the prevalence of anxiety and depressive symptoms in children and adolescents globally. The data obtained in the first year of the pandemic showed that 25.2% of youth had clinically elevated depression symptoms and 20.5% of youth had clinically elevated anxiety symptoms (Racine et al., 2021). The pooled estimates from this study were double of pre-pandemic estimates of depression and anxiety among young people.

In a survey of young adults and adolescents in Vermont, more than 60% of participants reported negative effects of the Covid pandemic on their physical, social, and emotional well-being, with significant spikes in depressive and anxiety symptoms

(Villanti, 2022). In a survey of 1,008 young adults between April 22 and May 11, 2020, 80% reported significant depressive symptoms, 61% reported moderate to severe anxiety, and 49% reported loneliness scores greater than 50% (Horigian et al., 2021). The Covid-19 pandemic has led to increases in loneliness, anxiety, and depression, especially among young people.

There has been a particularly significant increase in anxiety and depression among students of color, students in the LGBTQ community, children with special education needs, and students from low-income households (*Child Trends*, 2021; Jones, 2021; Kauhanen et al., 2022). The closing of face-to-face mental health services in schools have led to children with existing mental health conditions to not receive the care that they need, exacerbating their already-present mental health issues (Ageboye et al., 2021; Hoffman, 2020; M'jid, 2020; Wasserman et al., 2020). Anxiety significantly increased in children identified as “at risk” for mental health issues at an early age by teachers, and the pandemic especially worsened mental health problems in already vulnerable children (Adegboye et al., 2021).

Youth mental health is a critical concern in the aftermath of the pandemic. Because of the fear of infection, loss of loved ones, social isolation, closing of schools, and remote learning, significant increases in anxiety, depression, loneliness, and Post-Traumatic Stress Disorder have already been reported by young people and their parents (Cielo et al., 2021; Liu et al., 2020; Goyal & Gupta, 2020; Graupensperger, 2022; Hawke et al., 2020; Hawes et al., 2021; Horigian et al., 2021; Knopf, 2020; Nearchou et al., 2020; Tsamakis, 2021). Prevention and intervention approaches for youth mental health

should be an international priority in the aftermath of the pandemic.

What are the benefits of outdoor education programs for young people?

Outdoor and experiential educational experiences have been found to reduce feelings of anxiety, stress, antisocial behavior, and depression among young people (Davies et al., 2020; Mutz & Müller, 2016; Sayegh et al., 2019). These kinds of experiences have also been found to boost self-efficacy, intrinsic motivation, and active engagement among young people, particularly those who struggle in the typical classroom setting (Caldas et al., 2016; James & Williams, 2017; Mackenzie et al., 2017; Smith & Walsh, 2019).

In this research study, outdoor education is defined as a practice that is composed of the following six critical points. It (1) is a method for learning; (2) is experiential; (3) takes place primarily in the outdoors; (4) requires use of all senses and domains; (5) is based upon interdisciplinary curriculum matter; and (6) is a matter of relationships involving people and natural resources (Priest, 1986).

Teaching children through outdoor, experiential learning activities is far from new in the American education system. In 1915 American philosopher and educational reformer John Dewey wrote, “Experience [outside the school] has its geographical aspect, its artistic aspect, and its literary, its scientific, and its historical sides. All studies arise from aspects of the one earth and the one life lived upon it” (Louv, 2007).

Outdoor education programs have been found to boost emotional self-efficacy among young people, as well as help with their conflict management and problem-

solving skills (Caldas et al., 2016). In a quantitative study (2016), researchers measured the outcomes of youth participants at the Chesapeake Bay Outward Bound School. This program includes teambuilding and wilderness courses for Baltimore Public School students, and most participants are lower-income African American youth from Baltimore. The study focused on whether or not the program had an effect on the participants' problem-solving skills, conflict management, and emotional self-efficacy (Caldas et al., 2016). Emotional self-efficacy is defined in the study as "the ability to manage difficult emotions internally, allowing for greater self-esteem and socially-appropriate responses to emotions" and measured through the Brief Questionnaire for Measuring Self-Efficacy in Youth. The study found that the program boosted participants' emotional self-efficacy, increased participants' school performances, and lowered instances of bullying among participants.

Outdoor and adventure education programs have been found to improve the mental health and self-efficacy of young people (Davies et al., 2020; Mutz & Müller, 2016). In 2016, researchers tested the mental health benefits for 14-year-old participants of outdoor adventure programs. After participating in a nine-day mountain climbing adventure led by professional educators, researchers found that participants had a statistically significant increase in mindfulness, self-efficacy (as measured by the General Self-Efficacy Scale), resilience, subjective well-being, and a reduction in stress and anxiety (Mutz & Müller, 2016).

According to Mutz and Müller, successful outdoor adventure programs take place in unfamiliar natural environments, include challenging, collaborative activities, take

place in a small-group setting, and are guided by experienced, skilled instructors. Young people who participate in these programs explore their self-concept and identity and find a strong connection to others (Mutz & Müller, 2016). When participants in an outdoor education program have the same goal in mind, they tend to be more socially connected, and they create long-lasting bonds (Jostad et al., 2015).

In a 2020 quantitative, pre/post study (2020), researchers examined the impact of engaging in outdoor sustainable construction projects on the mental health and social connectedness of underserved, “hard-to-reach” youth (Davies et al., 2020). The participants in this study were 93 young people who were considered “hard-to-reach” because they were not attending school or employed. They worked eight days over a course of eight weeks on a sustainable construction project, through the “Down to Earth” organization. The “Down to Earth” organization is a nonprofit based in Wales with the goal of promoting positive change in the lives of underserved youth through meaningful outdoor activity (Down to Earth, 2020). Sustainable construction is defined in the study as “the process of creating structures and using processes that are environmentally responsible and resources-efficient throughout a building’s life-cycle” (Davies et al., 2020).

Researchers used a pre/post self-report measurement to examine any changes in mental health and social connectedness among participants after their participation in the construction project. They found that 53% of participants showed reliable improvement in their anxiety, while only 2% showed reliable deterioration in anxiety. 48% of participants showed reliable improvement in terms of depression, and only 4% showed

deterioration. Researchers found statistically significant improvements in feelings of social connectedness among participants (Davies et al., 2020).

Another study that examined the effects of outdoor education looked at the short-term mental health effects on long-term unemployed Australian youth who participated in skills training programs that involved work in National Parks and taking classes funded by the Youth Conservation Corps network (Creed et al., 1996). Researchers found that participation in the program had a significantly positive effect on participants' self-esteem, but the study did not indicate any decreases in psychological distress (Creed et al., 1996).

The 2017 phenomenological qualitative study by James and Williams sought to answer the question: "Is experiential outdoor education for middle school-aged students a valuable use of school time?" The participants in this study were 56 7th- and 8th-grade students, eight preservice teachers, and three classroom teachers. The students attended school in the Rocky Mountain west and participated in outdoor experiential learning.

In analyzing the qualitative data, the researchers concluded that the two-day outdoor learning experience was valuable for participants and it led to higher levels of engagement and intrinsic motivation among the participants. 79% of participants indicated that the outdoor education camp was worthwhile. One student in the study said: "It is a wonderful way to learn because you get fresh air and you're not cooped up in a classroom." Researchers also found that students who were typically reluctant to take on leadership roles in the classroom or to engage in educational activities led the group in outdoor activities and were more engaged than they had ever been in class. Students with

special needs were especially willing to step up and take on leadership roles, having confidence that teachers did not see in the typical classroom setting (James & Williams, 2017).

In widespread epidemiologic studies, researchers have found that outdoor play and connectedness to nature decrease the prevalence of recurrent psychosomatic symptoms among young people, and even improved adolescents' mental health and well-being during the Covid-19 pandemic (Jackson et al., 2021; Piccininni et al., 2018). In a cross-sectional epidemiological study (2018), researchers studied how exposure to nature and perceived connectedness to nature relates to the rates of youth psychosomatic symptoms. They used data from the 2013/2014 cycle of the Canadian Health Behaviour in School-Aged Children and analyzed the responses of 29,784 students aged 11–15 years old. Adolescents who identified a connection to nature as “somewhat important” or “important” were associated with low levels of psychosomatic symptoms across all demographics. In particular, young girls surveyed who spent more than 30 minutes outdoors a week had a 24% lower prevalence of high psychosomatic symptoms compared to those who had no outdoor time (Piccininni et al., 2018).

In a recent study meant to assess the effects of Covid-19 on youth outdoor time, subjective well-being, and correlations between the two factors (2021), researchers used a Qualtrics XM panel to conduct a nationally representative survey of American youth ages 10–18. It was conducted between April 20 and June 15, 2020 (Jackson et al., 2021). During the pandemic, 64% of young people reported decreases in outdoor recreation activities, and 52% of children reported declines in subjective well-being. Researchers

used a paired T-test to examine any correlation between the two factors. They found that young people who participated in more outdoor recreation activities before the start of the pandemic were more resistant to negative changes in their subjective well-being score during the Covid-19 pandemic than those who did not participate in outdoor recreation activities before the pandemic.

During the pandemic, 76.4% of those surveyed reported that spending time outside in nature helped them to cope with the stress associated with social distancing. Researchers saw similar trends with participants' self-reported mental health (Jackson et al., 2021). Overall, this study found that outdoor activity-based interventions help to boost subjective well-being and self-reported mental health among American youth and made them more resilient in the face of a global change event.

When young people lack outdoor time and exposure to nature, they develop a fear around the natural world which can be detrimental to their mental health and well-being (James & Williams, 2017). The theory of Biophilia is the concept that "humans have an innate affinity for the natural world, probably a biologically based need integral to our development as individuals" (Smith & Walsh, 2019). Author and journalist Richard Louv coined the term "nature deficit disorder." It is the idea that people, specifically children, are spending less and less time outdoors, and this is negatively affecting their behavior, concentration, and creativity. People's mental, physical, and spiritual health have been found to be linked to their association with the natural world (Louv, 2007).

In a 2003 study, researchers studied the mental health effects for rural children in 3rd-5th grade of having a higher exposure to nature near their homes. They surveyed 337

children and found that children with more nature near their homes had lower occurrences of anxiety and depression, a higher sense of self-worth, and higher resilience against stress and adversity (Wells & Evans, 2003).

Multiple studies show spending more time in nature and participating in outdoor educational activities decrease anxiety and depression among young people, boost intrinsic motivation, improve problem-solving ability, promote social connectedness, and increase self-efficacy (Caldas et al., 2016; James & Williams, 2017; Louv, 2007; Mackenzie et al., 2017; Mutz & Müller, 2016; Smith & Walsh, 2019). Young people who were spending more time participating in outdoor activities before the Covid-19 pandemic were found to have higher levels of resiliency to changes in mental health than children who were not participating in those activities (Jackson et al., 2021; Piccininni et al., 2018). Bringing authentic outdoor educational experiences into the classroom could perhaps help to combat the deteriorating state of youth mental health during the Covid-19 pandemic.

Who has access to outdoor educational opportunities?

“Economic barriers, misogyny, and racism have contributed to outdoor spaces in America being primarily for the recreation and education of white, economically-privileged, masculine, and able-bodied individuals” (Montero et al., 2018).

Outdoor access is skewed towards nonurban, white, able-bodied youth populations. Because young people aged 8–18 are spending an average of seven hours a

day on media and only 30 minutes a week outdoors, there is a fear surrounding the outdoors in children and parents alike (James & Williams, 2017). The issue of lack of time outdoors is especially prevalent among youth of color living in urban districts. In 2014, only 10% of African American and Hispanic youth participated in outdoor activities, compared to 70% of their Caucasian peers (Mackenzie et al., 2017). Disparate access to green spaces drives these significant discrepancies. Those living in urban areas have a much more difficult time accessing natural spaces because there is a shortage of green spaces and little to no transportation to get to these spaces.

Urban areas are considered “park poor” if there are three acres or less of park per one thousand residents. In Los Angeles, predominantly Hispanic and African American spaces have an average of 0.6-1.7 acres of green space per 1,000 residents, whereas predominantly Caucasian neighborhoods have an average of 31.8 acres of green space per 1,000 residents (Mackenzie et al., 2017).

In a recent qualitative research study (2017), researchers held seven focus groups with 42 youth living in the Los Angeles Basin. The majority of the children in the study did not have regular access to green spaces, and oftentimes this leads to more time using technology and social media (Mackenzie et al., 2017). Youth interviewed in the study expressed a *yearning* to “unplug,” put down their screens, and spend more time outdoors; they reported to researchers that lack of access, transportation, and information about opportunities to go to green spaces prevented them from fulfilling this dream to spend more time in nature (Mackenzie et al., 2017).

Lack of access to outdoor spaces and programs is far from a new issue in the

United States. The law that established the Civilian Conservation Corps contained a clause, "That in employing citizens for the purpose of this Act, no discrimination shall be made on account of race, color, and creed." But the CCC was still rampant with discrimination against African Americans. (Salmond, 1967). Nearly 200,000 African American men were part of the CCC between 1933 and 1943 (Cole, 1999). African Americans could not hold any position of authority in the CCC besides education advisors. Robert Fechner, the director of the CCC, ordered African Americans to work only within their home states, and maintained segregation in camps; meanwhile, officials in the CCC actively discriminated against African Americans in the hiring process (Salmond, 1967).

The National Association for the Advancement of Colored Peoples (NAACP) protested the discrimination present in camps in response. Fechner made it policy that African American people could only be selected as vacancies became available in already-established "Negro camps." President Franklin Delano Roosevelt approved this measure, although he requested that his name not be mentioned on the declaration. Unfortunately, African American men never gained the level of benefits and relief of being a part of the CCC that helped thousands of White men recovering from the Great Depression (Salmond, 1967).

Race and gender-based discrepancies in access to outdoor spaces and outdoor educational programs is an important social justice issue (Carlone, 2015). In her 2015 study, Carlone studied how identity came into play with students' connections to the natural world. She interviewed 16 diverse high school students during participation in a

herpetology summer enrichment program, many of whom had little access to green spaces before the experience.

According to Carlone, youth's detachment from the natural world is a concern of injustice. Communities that lack access to and education about the natural world are the ones that tend to be the most negatively affected by environmental issues (Carlone, 2015). People from socio-economically depressed areas are often the most impacted and the least protected from environmental health dangers.

Interviews with the students who participated in the program revealed that they had never seen themselves as "nature" people before the summer program. The program gave them access to the natural world and animals, as well as pushed for them to talk about identity and boundary work; the participants began to see themselves as people who could thrive in outdoor environments and spaces (Carlone, 2015).

Historically, outdoor experiential education programs have disproportionately featured White men in leadership roles, and unequal power between men and women (Warren et al., 2014). All-female crews have consistently been found to provide supportive environments for women to learn and to grow (Warren et al., 2014). Despite the history of inequity between genders in outdoor education programs, these types of programs have proven to be especially beneficial for young girls' self-esteem (Barton et al., 2016).

In a 2016 quantitative study, researchers measured the impact of wilderness expeditions on youth self-esteem and connectedness to nature. They surveyed the 130 participants before and after an adventure expedition and used a two-way ANOVA test to

analyze the results of the survey. The test found that boys' self-esteem was higher than girls' self-esteem before the expedition, but not after it. Researchers saw a statistically significant growth in self-esteem looking at the girls' pre/post expedition surveys (Barton et al., 2016).

Youth tend to have similar learning outcomes in outdoor learning courses, despite differences in socio-economic statuses. The purpose of a 2019 qualitative study was to understand how learning outcomes differed between students who did and did not receive scholarships. Researchers completed semi-structured interviews with 21 students who participated in a National Outdoor Leadership School (NOLS) course between 2010 and 2012 five years after they had completed the course. They found that, regardless of socio-economic background, students had similar learning outcomes and methods for using the course lessons in their lives (Meerts-Brandsma et al., 2019).

Outdoor education seems to have a positive impact on youth participants, regardless of their race, gender, or social status. The issue lies in the *access* to these programs and to green spaces. Young people living in urban environments yearn to be in nature, and it is a matter of providing them with the opportunities and the resources to do so (Mackenzie et al., 2017).

What is the history and background of the Youth Corps Network?

Those who established the Vermont Youth Conservation Corps and other organizations in the Corps Network were inspired by the model of the Civilian Conservation Corps (CCC) that was created as part of Franklin Delano Roosevelt's "New

Deal” policies during the Great Depression in April of 1933. The previous year, one in four of the 15–24-year-olds in the labor market were unemployed. FDR drafted a plan to put an army of unemployed young men to work solely in the forests and national parks (Salmond, 1967). This program gave jobs to three million unemployed men between the ages of 17 and 23 nationwide, mostly in forest management, conservation projects, construction projects, and the development of state and national parks (Maher, 2008). The Departments of Labor, Agriculture, War, and the Interior controlled the program. The CCC established camps in every state and in Alaska, Hawaii, Puerto Rico, and the Virgin Islands (Lacey, 1976).

In November of 1933, FDR approved a plan for a nation-wide, Washington-directed Civilian Conservation Corps education service. Each camp would have an educational advisor, and the corps members could take night classes from elementary to college-level instruction (Salmond, 1967). By June 1937, 35,000 men who were illiterate upon entering the CCC had been taught how to read and write. Civilian Conservation Corps member Frederick Katz is quoted as saying, “The CCC has benefited me in both body and mind.” Pablo Diaz Albertt, who had moved from New York City to the woods of Montana to be in the CCC, is quoted as saying, “I grew stronger, I became more solid, I changed.” Not only did the Civilian Conservation Corps lead to vast environmental improvements and conservation efforts; it helped people ravaged by the Great Depression to find hope for a better future for themselves and for generations to come (Maher, 2008).

The Youth Conservation Corps became a permanent institution in 1974, with an

annual federal appropriation of \$60 million. It was one of the most successful environmental work programs ever legislated for youth, with programs in all 50 states and Puerto Rico, the Virgin Islands, Guam, and American Samoa (Nye, 1980). Its main goal was for youth participants to have increased awareness and appreciation for themselves, others, and the environment. It was modeled after the CCC and designed for the dual purposes of conserving natural resources and lowering unemployment among the nation's youth (Nye, 1980). Youth Corps organizations share a common mission, despite differences in programming and size. Each organization within the Corps Network seeks to promote community service, workplace development, and education among its participants (Price, 2011). Being a part of the Youth Corps network involves completing conservation projects and serving the local community; crew members engage in some form of project-based learning, as well as service learning.

In their 1984 quantitative pilot study, Driver and Johnson hoped to uncover the perceived long-term benefits of participating in a Youth Conservation Corps program (Driver & Johnson, 1984). Even though this is an older study, it is one of the only published research articles that specifically focuses on the effects of the YCC experience. Driver and Johnson began with developing a list of possible long-term benefits through a collaboration with YCC administrators and other members of the research team. They came up with five areas that they wanted to study in terms of long-term effects from YCC participation: environmental awareness, work habits, ability to get along with others, self-confidence, and basic orientation to life.

Researchers randomly selected 1,200 names from a list of YCC participants from

1972 to 1975; of those names, the researchers sent 57-question surveys with 16 scales on the potential long-term effects of the program to 600 participants. Then they sent questionnaires to the parents or guardians of the remaining 600 participants. Researchers analyzed the results for statistical significance between participating in the YCC and the long-term benefits. They used data from a national survey of high school seniors as the control group, comparing the data from the YCC participant questionnaires to the results from the national survey.

Both the former participants in the YCC and their parents expressed that the participants had become much more environmentally aware, improved their work skills, and greatly increased their interest in outdoor areas. There was also a perceived increase in self-confidence, ability to work well with others, and heightened sense of responsibility, but it was of a smaller magnitude than the other long-term effects. There were also no significant mean score differences on benefit scores when participants were stratified by race, type of camp, length of camp, or location of camp. Female participants, however, rated the influence of the YCC experience significantly greater on five of the benefit scales, compared to their male counterparts (Driver & Johnson, 1984).

Another study on the Youth Conservation Corps examined the effect of the YCC experience on an adolescent's self-concept. The researchers defined self-concept as the attitudes and opinions that a person has about his or herself, based on their perceptions. Participants between the ages of 15 and 18 working in 38 states and the District of Columbia were surveyed before and after their YCC experience. Researchers found that, overall, there was no change in participants' self-concept. They did find that participants'

perceptions of their self-worth and social skills increased over the course of their stints in the YCC, while their perceptions of their adequacies decreased (Dickerson, 1977). A study published in 1978 examined whether the YCC experience had an impact on the personal and social development of youth participants, studying two YCC programs and using control groups to measure the impact. The study did not find convincing evidence of a strong impact, but it did conclude that the quality of the YCC staff, the nature of the work, and the organizational structure of the program were three critical elements in determining the value of a YCC experience (Hamilton & Stewart, 1978).

The YCC was eliminated in 1981 due to federal budget cuts, but the programs were so successful that states had already started funding their own conservation corps programs, starting with the California Youth Conservation Corps, founded in 1976. In the early 1990s, conservation corps across the country gained federal funding when the Commission on National and Community Service awarded about \$22.5 million in grants. In 1993, President Bill Clinton signed the National and Community Service Trust Act, which provided even more federal support and notably created post-service educational benefits for Youth Corps participants through the AmeriCorps program (The Corps Network, 2023).

The Vermont Youth Conservation Corps is a part of the Corps network. It is a nonprofit organization that was founded in 1985. Since the VYCC's founding in 1985, more than 6,000 young adults have worked for the nonprofit, and each year it engages over 250 people between the ages of 15 and 26 in its programming. Corps members do not need technical skills or work experience to apply to the VYCC. Its mission statement

is to take action and build community by working and learning together with the land.

Following is a table that depicts the VYCC program principles and a description of each principle:

Principle	Description
Safety and Health	Foster a safe working and living environment.
Support	Have care for self and others.
Community	Create a culture of belonging.
Grit and Resiliency	Lean into challenge and learn from failure.
Accountability	Be accountable to yourself and your crew.
Professionalism	Have pride in your work and model professionalism.

Table 1: VYCC Program Principles and Descriptions

The VYCC has two main branches: the farm crew and the conservation crew. The farm crew combines sustainable agriculture and food security (VYCC, 2023). Those who are on the farm crew learn how to grow and care for seasonal crops on the VYCC's 400-acre campus, working on a certified organic farm. Once harvested, the crops go to a few different places. Some are given to the farm crews themselves for their meals, others are sold at the Farm Stand at the headquarters, and others are sent to the Vermont Health Care Share, which provides Vermont families with fresh, local food through their various health care providers. Its aim is to help communities in Vermont that are food insecure to access healthy food from the farm (VYCC, 2023).

The second branch of the organization is the Conservation Corps. This branch focuses on completing conservation projects throughout the state of Vermont. Project Leaders in the VYCC work with community partners to place crews in areas that are in

need of workers to complete conservation projects. The crews will come to the area and work with guidance from the community partners to complete projects. Project areas focus on water quality, forest health, state park construction, and building sustainable trails and campsites (VYCC, 2023). Whether a member is on the farm crew or the conservation crew, they are working with a group of other young people for the duration of their stints. Modeled after the original environmental crusaders in the Civilian Conservation Corps, the VYCC has been employing young people for 38 years to learn new skills to complete projects that have a direct impact on communities throughout the state of Vermont.

CHAPTER THREE

PLAN OF INQUIRY

Reminder of General Topic and Specific Study Focus

The Covid-19 pandemic has had a significantly negative impact on youth mental health and has engendered feelings of loneliness and isolation. The pandemic has caused young people to be alienated from their peers and school communities, and to feel uncertain about a positive future. Experts predict that being removed from their peer groups and schools will lead to increases in loneliness among youth, along with higher rates of anxiety, depression, and PTSD (Goyal & Gupta, 2020; Hawke et al., 2020; Knopf, 2020; Nearchou, 2020).

Bringing outdoor learning into schools could help address the deteriorating state of youth mental health. These types of educational experiences have been found to improve youth mental health, leading to decreases in anxiety and depression and increases to feelings of belonging and strong, interpersonal relationships (Davies et al.; Jackson et al., 2021; James & Williams, 2017; Mackenzie et al., 2017; Mutz & Müller, 2016).

This qualitative phenomenological research study examined the understudied experience of being a part of a youth conservation corps and how it affects participants' perceived mental health. It also addressed the feasibility of adapting these practices for the classroom setting. The participants in the study were first-time crew members between the ages of 21 and 26, as well as recent alumni of the Vermont Youth

Conservation Corps who either currently or recently worked regularly with children in their professions.

In the spring of 2022, five recent alumni of the VYCC who regularly work with children were interviewed with the questions focusing on how their participation in the VYCC has affected their work now. During the summer of 2022, this researcher interviewed five first-time VYCC participants three times throughout their summer stints. This researcher analyzed these interviews for common themes and significant statements, and used these to describe the shared experience of participating in the Vermont Youth Conservation Corps and the implications for the post-pandemic classroom.

Research Approach

This was a qualitative phenomenological research study on the Vermont Youth Conservation Corps experience, with a focus on its effects on participants' mental health, the aspects of the VYCC that led to those changes, and the transferability of strategies used in the VYCC to the classroom. The first part of the study focused on the experience of first-time participants in the VYCC, with a focus on any changes to participants' perceived mental health throughout their summer experiences.

Before conducting the interviews, this researcher answered the interview questions in regards to her own personal experience in the VYCC. In *Phenomenological Research Methods*, Clark Moustakas emphasizes the importance of "bracketing," the act of researchers setting aside their own experiences in order to give a fresh perspective of the phenomenon without the researcher's biases (Cresswell & Poth, 2018; Moustakas,

1994). This researcher transcribed her interview, and then sorted quotes from her interview into themes surrounding her VYCC experience. The themes included a decrease in perceived anxiety, an increased belief in her abilities, and an increase in confidence in making connections with people different from herself.

Awareness of these biases helped to assure that the results of this study were not unreasonably influenced by this researcher's prior experiences and opinions. Qualitative research studies will always contain some level of bias due to the nature of the work, but by bracketing this researcher's experience and intentionally checking that bias throughout the entirety of the research process, it helped to mitigate the effect of this researcher's biases. It was important to not only bracket this researcher's experience, but to be intentional when interviewing participants, analyzing the results, and sharing the major findings, in order to avoid bringing personal biases into the research process. Throughout the research study, this researcher especially scrutinized themes gleaned from the interviews that paralleled themes that came out of bracketing her own experience. After bracketing her experience, this researcher began the participant recruitment process.

In order to recruit first-time participants for this research study, this researcher worked with Daniel Schmidt, the Director of Programming at the VYCC. This researcher sent a blurb to Mr. Schmidt about the study that he used to describe this study to first-time participants during orientation. This blurb can be found in the appendix of the dissertation. Five first-time participants in the VYCC expressed their interest in joining this research study to their supervisors or Mr. Schmidt. Their supervisors then set up the first interviews during June of 2022. These participants were also interviewed halfway

through their summer experiences in July and at the end of their experiences in August. These interviews were semi-structured, and were roughly 30 minutes in June, one hour in July and one hour in August. The interview questions can be found in the appendix of the dissertation. The interview questions were developed with the help of Dr. Kimberly Howard of Boston University.

The second part of the study focused on the transferability of strategies used in the VYCC to schools and other youth-centered organizations. This researcher developed a recruitment flier in order to attract five recent alumni of the VYCC who regularly work with young people in their current or recent jobs. This recruitment flier can be found in the appendix of this dissertation. Aimee Shafner, the Director of Alumni Relations at the VYCC, helped with the recruitment of participants. She sent a digital copy of the flier in the VYCC Newsletter.

Five people who wanted to participate in the study responded, and they participated in semi-structured over Zoom in the spring of 2022. The interview questions were also developed with the help of Dr. Kimberly Howard, and they focused on the ways in which the participants took strategies or lessons from their time in the VYCC into their current or recent work with young people. The interview questions can be found in the appendix. The goal of this part of the research study was to uncover the aspects of their VYCC experience they have brought into their work with children. Below is a table showing the methods and differences involved in the two parts of the study:

Part One	Part Two
Five First-Time Participants	Five Alumni Participants who work regularly with young people
Three interviews at the beginning, middle, and end of their 2022 summer experiences	One hour-long interview over Zoom in the spring of 2022
Questions focused on perceived mental health effects and causes	Questions focused on how their VYCC experience influenced their current work

Table 2: Two Parts of the Study

After transcribing each of the interviews using the Otter AI Software, this researcher reread the interviews and wrote down common themes that showed up in multiple interviews that were closely related to the research questions. This researcher then used the Quirkos software to code each of the interviews and sort them into the common theme categories that related to the research questions. This researcher coded the interviews with the alumni participants and the first-time participants separately, but there was some overlap in themes between the two categories of interviews.

The methodology for this research study was based on the methods described in *Qualitative Inquiry and Research Design: Choosing Among the Five Approaches* by Creswell and Poth and *Phenomenological Research Methods* by Clark Moustakas. This researcher chose to utilize a phenomenological research approach because the study aimed to capture the “essence” of the VYCC experience and how it was being brought into other youth organizations.

Phenomenological studies focus on how multiple individuals experienced a phenomenon, searching for common threads among the experiences. This study aimed to uncover common experiences in terms of mental health among first-time participants in

the VYCC. It also uncovered whether the commonalities in how the alumni's experiences in the VYCC affected how they work with young people today. In choosing among the five main approaches to qualitative research, the phenomenological research method most aligned with the goals of the research; it examined commonalities among participants in the VYCC and how these affect their work with young people.

Positionality of Researcher

This researcher is a 7th- and 8th-grade language arts teacher at Lebanon Middle School in Lebanon, NH. She has been working in the Lebanon School District for three school years. She participated in the Vermont Youth Conservation Corps first as a crew member of a conservation crew from June to August of 2013, and then as a crew leader from May to August of 2015. She had a positive experience working for the Vermont Youth Conservation Corps.

She grew up in Mendon, Vermont, and attended Rutland Senior High School. She received her Bachelor of Arts degree in English from the University of Notre Dame in 2016 and received her Masters in the Art of Teaching from the University of Portland in 2018. She has worked as a middle school teacher for seven years in schools in Seattle, WA, University Heights, OH, and Lebanon, NH. She enrolled in a Doctorate in Educational Leadership and Policy program at Boston University in May of 2019. She is a 29-year-old, White, cisgender woman.

Demographics of Participants

The first two research questions were addressed during interviews with first-time participants in the VYCC throughout the summer of 2022, starting in June and ending in August. The first participant was a 25-year-old cisgender male who identified as half Indian and half White. His job for the summer was assistant crew leader for the farm crew. The second participant was a 22-year-old cisgender female who identified as White who worked as a food and nourishment project lead for the farm crew at the VYCC. The third participant was a 24-year-old transgender woman who identified as White who worked as a farm crew member this summer. The fourth participant was a 24-year-old cisgender female who identified as White who worked as a conservation crew leader this summer. The fifth participant was a 21-year-old conservation crew leader who identified as an African-American male. It was optional for participants to identify their demographics, and each of the participants provided their demographic information.

Even though the questions in the interviews for first-time participants focused on the first two research questions, the interview responses also gave insight into the third research question. This researcher would end each interview with a short summary of the subject of the dissertation, and participants would offer answers to the third research question as well, providing their insights as to how parts of the VYCC programming could be brought into the classroom. One first time participant was training to become a paraeducator, and so she had spent time in the classroom before her VYCC experience. She, in particular, was especially eager to share the parts of the VYCC that she believed

would work well in the classroom setting.

To address the third research question, “What aspects of the VYCC can feasibly be brought into the classroom setting?” this researcher interviewed five people who had participated in the VYCC who currently or recently worked regularly with young people in their professions. The first alumni participant worked for TerraCorps, an AmeriCorps organization that connects high school students to conservation projects. This participant was also in charge of the citizen science program at a major university that involved bringing students outdoors to identify trees and pest damage. This participant ran a yearly program for elementary school students that included a day of science programming. This participant worked for the VYCC in 2012 and 2014 for the conservation crew and did not provide demographic information. The second participant worked as a cabin instructor and taught science and leadership classes at an outdoor youth science camp. They identified as White non-binary, and worked for the VYCC on the conservation Queer Crew, a crew with only queer-identifying participants, in 2021. The third participant in the study was a farm-to-school coordinator for a K–12 unified school district who was female-identifying white and worked for the VYCC seasonally from 2016-2018 on the farm crew and October 2018-August 2021 full time. The fourth participant was a full-time middle school music teacher who identified as White cisgender female who worked for the VYCC during the summers of 2014 and 2015 on a conservation crew. The fifth participant worked as a classroom teacher at a private elementary school, primarily teaching English Language Arts from Kindergarten-4th grade. He identified as male and White and worked for the VYCC on a conservation crew in 2010 and 2011.

Methods and Questions

Macro research question	Specific research questions	Methods used to explore specific questions
How does participating in the Vermont Youth Conservation Corps affect participants' perceived mental health, and what parts of the programming can feasibly be brought into the classroom?	1. How does participating in the Vermont Youth Conservation Corps affect participants' perceived mental health?	Qualitative phenomenological study– first-time participant interviews
	2. What aspects of the Vermont Youth Conservation Corps lead to perceived changes in participants' mental health?	Qualitative phenomenological study– first-time participant interviews
	3. What aspects of the VYCC can feasibly be brought into the classroom setting?	Qualitative phenomenological study– interviews with alumni who now or recently worked with young people

Table 3: Methods and Questions

Potential Findings

This researcher hypothesized that first-time participants in the VYCC would report common themes of growing authentic connections with those around them, increased self-efficacy, it being their belief in themselves and their ability to accomplish goals, and decreased anxiety and stress. The VYCC has programming with the purpose of bringing those on a crew closer together and to trust each other to complete complex and meaningful conservation projects. The summer begins with different bonding experiences between crew members that encourage crew members to be vulnerable with each other

and to share their stories. Throughout the summer, crew leaders have weekly check-ins where they meet one on one with crew members and discuss their personal and professional growth. The leaders make the crew members feel valued and cared for in an unfamiliar environment.

The crew leaders are also intentional in how they get to know the crew members' strengths and to split up the work on the conservation projects. Every week, the crew members each have an important job for which they are responsible. This includes meal preparation, bread making, crew leader of the week, educator, dish washer, and tool checker. (Vermont Youth Conservation Corps, 2023). These aspects of the VYCC could lead to the common theme of the VYCC participants reporting higher levels of authentic connections with those around them.

This researcher also hypothesized that participating in the VYCC would lead first-time crew members to report the common theme of increased self-efficacy and belief in their ability to learn new things and to accomplish goals. Those who participate in the VYCC engage in project-based learning and service learning, types of learning which have been found to increase intrinsic motivation, engagement, and commitment to accomplishing goals (Grant, 2002; Kokatsaki et al., 2016).

This researcher hypothesized that a common theme among first-time participants in the VYCC would be decreased anxiety and stress. Studies on other programs have found that outdoor experiential programs led to decreased anxiety and stress and increased subjective well-being (Davies et al. 2020; Mutz & Müller, 2016). These quantitative studies did not, however, answer why these types of programs led to

improved mental health. The researchers in the 2020 study even suggested that a qualitative study on the mental health effects of a group-based sustainable construction program would be helpful in uncovering the specific aspects of this type of program that lead to improved mental health (Davies, 2020). In this qualitative research study on the Vermont Youth Conservation Corps, the hope was to uncover aspects of the programming that may lead to decreased perceived anxiety and stress among participants.

In terms of the second part of the study in which alumni of the VYCC who work regularly with children are interviewed, this researcher hypothesized that some common themes among their interviews would be that their participation in the VYCC led to them to bring relationship-building techniques, project-based and service learning, and outdoor education into their current workplace. These seem to me to be common themes from the VYCC that could feasibly be brought into a classroom or youth organization.

Because of these elements of the programming, this researcher hypothesized that those who participated in the VYCC would have the shared experience of increased feelings of connectedness to their peers, lower feelings of worry and anxiety, and an increased belief in their abilities to learn new tasks and to complete meaningful work. This researcher also hypothesized that the alumni who work with children would report the common themes of bringing relationship-building techniques, project-based and service learning activities, and outdoor opportunities into their organizations.

Based on prior research on outdoor education, project-based learning, critical service learning, and knowledge of the VYCC's programming, these were the hypotheses

for this research study. However, the nature of a phenomenological study is for the researcher to be open to unexpected discoveries when examining the “essence” of a program or phenomenon. It is important to keep in mind that this researcher was open to any new discoveries about the VYCC’s effects on youth mental health, even if they contradict her own experience or predictions.

Limitations

The first-time participants in the program were a diverse group made up of different genders and races, but there was a lack of diversity in terms of the alumni participants in the study, it being that they all identified as White. This may have skewed the results of that portion of the study. The experiment was also conducted over a short period of time, which could limit the potential findings. The alumni participants were only interviewed once, and the first-time participants were only interviewed during the summer of 2022. This short time frame may not show the long-term effects of this program on the participants.

The people who apply to the VYCC most likely enjoy participating in outdoor activities and spending time in the natural world. They probably would not apply for this line of work if they did not enjoy being outside. The programming that is positive for participants in the VYCC could be less effective, and perhaps even stressful, for young people in the average American classroom who were not used to spending time outdoors.

There was also a chance of the presence of social desirability bias among the first-time participants when they are providing answers to the interview questions. They may

have associated this researcher with the VYCC, since she had previously worked for them, and may have wanted to provide her with positive answers about their experiences. That is why it was especially important for this researcher to emphasize that she did not work for the VYCC and that she was only hoping to receive authentic responses. It was also important for the interview questions to not lead to particular answers, but instead to use neutral language that allowed the participants to provide authentic responses.

Transferability

Students, teachers, school administrators, and youth conservation corps would benefit from the results of this research study. The common themes uncovered about the VYCC would benefit teachers hoping to bring outdoor learning experiences into their classes post-pandemic in order to boost self-efficacy, lower feelings of anxiety, and increase engagement in their students. Being a part of the VYCC is certainly a unique experience, but it seemed that there were aspects of its programming and design that could be transferred to the classroom setting. This research study uncovered common themes among alumni of the VYCC who regularly work with children on how they have transferred strategies used in the VYCC to their schools or youth organizations.

The Vermont Youth Conservation Corps itself would also benefit from this study because it proved to be a good way of highlighting the stories of those who participated in their organization, and the effect of their experiences. This research study also uncovered opportunities for growth in the VYCC organization that would be helpful towards its continuous improvement.

Coming out of the Covid-19 pandemic, youth mental health is a national crisis, and the hope is that this research helped to shine light on some techniques that could combat the mental health crisis in schools. This phenomenological research study uncovered common themes among participants as to how the VYCC experience affected their perceived mental health, which aspects of the programming led to those changes, and how to feasibly bring those strategies into the classroom setting.

CHAPTER FOUR

FINDINGS

Introduction

The premise of this phenomenological study was to complete research about a youth organization that may already have positive effects on perceived mental health, and investigate how lessons from that organization could be brought into schools. The Vermont Youth Conservation Corps incorporates outdoor education into the crew members' work experience, which has been found to have a positive effect on either youth mental health (Smith & Walsh, 2019; James & Williams, 2017; Davies et al., 2020; James & Williams, 2017; Mackenzie et al., 2017; Mutz & Müller, 2016).

The VYCC also includes aspects of project-based learning and critical service learning, which tend to positively affect youth self-efficacy, intrinsic motivation, and civic engagement (Einfeld et al., 2008; Grant, 2002; Kokatsaki et al., 2016; Krsmanovic, 2021). The reason for this premise is the current mental health crisis in the United States, exemplified with a recent significant rise in anxiety and depression among young people (Hawes et al. 2021; Kauhanen et al., 2022; Lieu et al., 2020; Mental Health America, 2021; Goyal & Gupta, 2020; Racine et al., 2021; Wasserman et al., 2020). Following are the research questions for the study:

1. How does participating in the VYCC affect participants' perceived mental health?
2. What aspects of the VYCC lead to perceived changes in participants' mental health?

3. What aspects of the VYCC can feasibly be brought into the classroom setting?

Overview of Results

This chapter starts with addressing the first research question, which posits: “How does participating in the VYCC affect participants’ perceived mental health?” Each theme in this section stems from participants’ self-reporting of their emotions throughout the summer and whether or not they saw changes in their perceived mental health. The first section focuses on perceived changes to mental health. It is not until the second research question is addressed that the “why” behind these perceived changes is explored.

The first two themes involve the main emotions participants reported throughout the summer. Each participant reported feeling either joy, pride, satisfaction, accomplishment, or a combination of these emotions throughout the summer. It seems from their interviews that there was an increase in these emotions throughout the summer experience. The chapter then discusses how each of the participants reported feeling frustration, stress, burnout, or a combination of these emotions throughout the summer. It seems that some of them had increases in these emotions throughout their summer experiences.

The next theme is titled “Self-Reflection and Growth.” Most of the participants reflected on how their heightened emotions pushed them to reflect on their identities, and explained how they felt self-growth over the summer. This section then goes into

“Confidence.” All of the participants mentioned confidence at the end of their summer experiences. Four out of five participants reported an increase in confidence in various facets, and one of the participants reported mixed feelings about their confidence.

The next section looks at the anxiety of participants. Four out of five of the participants mentioned their levels of perceived anxiety changing throughout the summer, with two reporting decreases in anxiety, one reporting that it changed throughout the summer but neither decreased or increased, and one reporting that it increased throughout the summer experience. The final section that examines the first research question is “Perceived Changes to Depression and Feeling at Peace Outdoors.” One participant mentioned how she now has a tool to use when she is feeling stressed or frustrated in her current work, one participant reported feeling more depressed at certain points of his summer experience, and another participant reported a significant change to her perceived level of depression.

This chapter then delves into the second research question: “What aspects of the VYCC lead to changes in perceived mental health?” This is where quotes are included that illustrate the “why” behind the changes in perceived mental health. This section starts with the effect that crew dynamics seem to have had on perceived mental health. Most participants expressed that crew dynamics had both positive and negative effects on perceived mental health. The chapter then goes into “Feedback and Communication with Superiors.” This widens the community, including supervisors and project managers. Similarly, this part of the VYCC experience seems to have had both positive and negative effects on perceived mental health. The chapter then goes into a wider view of the

community in the VYCC with “Connection to the Community.” This section details the overwhelmingly positive effect on participants' perceived mental health that seems to stem from seeing the positive effect the VYCC's work has on the community, along with connections with local community members.

The chapter then goes into the process of the work in the VYCC, and the effect that it had on perceived mental health. Most of the participants reported that the “learning by doing” aspect of the VYCC work, which reflects the principles of Project-Based Learning, had a positive effect on their perceived mental health. They seem to have enjoyed the process of learning from their mistakes, while still accomplishing their goals. Some of them felt pressure to finish projects on time, so they had to remind themselves to be patient with themselves and to give themselves grace in the process. Another aspect of the VYCC work and culture that seems to have had an effect on perceived mental health was the organization’s focus on embracing curiosity and building awareness in their crew members as to why specific work is being done. Each of the participants reported feeling a sense of purpose in their work, and that seems to have had a positive effect on perceived mental health.

This chapter ends with addressing the third research question, which asks, “What aspects of the VYCC can feasibly be brought into the classroom setting?” This section starts with the theme of “Igniting Passion and Sparking Curiosity.” This section relates closely to the “Curiosity and Finding Purpose” theme that ends the previous section. Most of the alumni participants and one first-time participant who was training to be a paraeducator reported that their experience in the VYCC encouraged them to promote

curiosity and a sense of discovery in their classrooms and places of work and to help children find their passions and to build off of those passions. This is a strategy that can be used in the classroom, starting on the first day of school.

The next section is on building connections and creating a welcoming community. “Community” is a VYCC principle that is defined as “creating a culture of belonging” in the VYCC mission statement (VYCC, 2023). The alumni participants seemed to have taken that principle into their own places of work. This is a strategy that educators can use in the first weeks of school with new students. The alumni participants emphasized how the VYCC encouraged them to get to know their students on a more holistic level and to embrace young people with different perspectives and from different backgrounds. This is the next theme included in this chapter, and also goes along with the “Community” principle of the VYCC.

Alumni participants emphasized the importance of showing young people that success does not just mean one thing and that young people can be successful in a number of ways, not necessarily just the definition of success in mainstream society, a lesson they seemed to have gleaned from their VYCC experiences. They discussed how being in the VYCC helped them to see how people have different strengths and it is important to nurture those strengths with young people in the classroom or other places of work.

The final section has to do with the process of learning the alumni participants experienced in the VYCC, and it relates to the “Learning by Doing” section of the second research question. Most of the alumni participants explained how the VYCC taught them

that learning is about the process, not just the outcome. They described principles in project-based learning, including seeing mistakes as learning opportunities and creating a tangible product to demonstrate learning and growth. They hoped to use these strategies with their own students and to bring that kind of perspective on learning into their classrooms and places of work. This closely relates to the VYCC's principle of "Grit and Resiliency," which is defined on their website as "leaning into challenges and learning from failure" (VYCC, 2023). Interestingly, they not only mentioned sharing this lesson with their students, but also personally taking it to heart. They explained how they saw their mistakes as opportunities for learning, and that it was important for them to reflect on shortcomings so that they could improve next time.

Chapter four is focused on the results of this research study, split into three sections based on the research questions, with sequential sub-sections based on the interviews with the participants. All of the research questions are interrelated, and so it is logical that there will be some overlap between the different sections. Chapter five, "Discussion of Results," then discusses the key results from this study, the implications for practice, the limitations of the study, the limitations for future studies, and conclusions. Chapter four focuses on the results of the study, starting with the first research question.

Research Question One

1. How does participating in the VYCC affect participants' perceived mental health?

This research question is addressed in each of the interviews with first-time participants in the VYCC. The following sections of chapter four of this dissertation are made up of the common themes extrapolated from the data that were present across multiple interview transcripts. Each of the following categories related to the first research question, the VYCC's effect on participants' perceived mental health. Overall, there were varied results in terms of the participants' perceived mental health effects.

Shown below is a screenshot of the main themes related to research question one in the Quirkos qualitative data software. This researcher used the Quirkos software to sort quotes from first-time interviews into common themes. Each common theme is indicated with a different bubble and color. The larger the bubble, the more quotes related to that particular theme in the interviews. This coding software was also used to sort quotes on research questions two and three.

Figure 1: Quirkos Software Research Question One Themes



Joy, Pride, Satisfaction, and Accomplishment

When asked about the emotions or moments that stood out to them the most this summer, all of the participants either mentioned pride, satisfaction, accomplishment, joy, or a combination, all of which seem to have a positive effect on participants' perceived mental health. All of these emotions seem to have made participants feel better about themselves and their work, with participants describing feeling simultaneously calm and excited during their time in the VYCC. There were moments and aspects of the work that seem to have had a direct effect on these perceived emotions, but that will be covered in the section focused on the second research question.

Participants explained that they felt pride, both because of their major accomplishments over the summer, and because of the personal growth they experienced. One participant explained:

"I think there's definitely some pride in putting in the work and seeing it. That reciprocal relationship between putting in the work to grow food, and then having it nourish you and your peers."

Another participant reflected on the pride in their personal growth, explaining: "So I feel as though I've grown a lot. And I am really proud of that growth that happened. So I have pride for sure in our work and in the changes in myself that have gone on."

Participants in this study explicitly talked about feelings of pride both in their personal growth and the nature of their work in the VYCC. This positive increase in feelings of pride seems to have had a positive effect on perceived mental health because

participants would mention alleviated anxiety and increased feelings of internal peace surrounding these emotions.

The next emotion that seems to have stood out to participants was the joy they felt throughout the summer. When interviewed for a second time, one participant started out by telling this researcher that she was having a great day. This participant on the farm crew explained the emotion that came with the nature of the work and her relationships with fellow crew members. When asked what emotions stood out to her this summer, she said, “Joy because so many of my coworkers are great people and make me laugh and show kindness.”

Similarly, when asked about her work at Pine Hill Park, which is a series of mountain biking and hiking trails in Rutland, Vermont, a participant who worked on a conservation corps’s eyes lit up as she described her positive experience: “I’ve been really joyous about working on the trail and at Pine Hill. Just everything about that project was so beautiful, the people were beautiful, that place is really beautiful, the community was really beautiful.”

In discussing his work in the first half of the summer, also at Pine Hill Park, another participant became energized and began talking about the mountain bike trail “Maximum Capacity,” that he and his crew were able to complete. This was especially astonishing to this researcher because this participant had just worked a long day of carrying puncheon, long pieces of boardwalk wood in the hot sun. He perked up as he explained:

“The first goal I set was, I want to finish the mountain biking trail. I don't want to go out there and half finish it, half do it, try our best. I wanted it done. And we finished it! And that was really nice. We finished it on the second to last day, and I was like, ‘Mission accomplished, yes!’”

When asked about the emotions or moments that stood out during their summer experiences, the participants all mentioned either increased joy, pride, satisfaction, feelings of accomplishment, or a combination of these. One participant talked about feeling satisfaction about her work, and the joy that came with working synchronously with her colleagues. Another talked about the pride present, especially during the celebration dinners, where family and friends can come to enjoy the fresh food prepared by their loved ones, only using produce from the VYCC farm.

Another participant felt pride in her own growth, of growing her ability to advocate for others and to use her voice. She explained how she did not realize she had that ability within herself until she had to advocate for the people on her crew.

Frustration, Stress, and Burnout

When asked, “What emotions stood out to you the most this summer?” some of the most common emotions, along with pride, joy, satisfaction, and feelings of accomplishment, were frustration, stress, burnout. Some participants felt “literal burnout,” as it was a sweltering summer, while others felt emotional and social burnout during their summer experiences that negatively affected their perceived mental health. Particularly the participants in leadership positions pointed out the pressure they felt to accomplish major tasks and to accommodate for a variety of skill levels on their crews. A

participant who worked as an Assistant Crew Leader explained, “For myself, I would say there's been some pressure from people, directly to me regarding my leadership, that has knocked me a few times...So it's been an obstacle that I've been trying to work through.”

Another participant who worked in a leadership position in the VYCC explained the effect of the pressure to execute tasks flawlessly:

“Definitely one challenge has been the stress of getting things done and doing them well...as I'm falling asleep at night, or getting up in the morning and getting like, Oh, my God, I have a full plan for today, because it's impossible to plan perfectly for every day. Or oh, my gosh, what is my supervisor going to say about this meal? It's always a little bit of worry, in the back of my mind.”

The participants in leadership positions mentioned feeling “pressure...directly to me regarding my leadership,” “the stress of getting things done and doing them well,” and “the frustration and burnout...that came with shouldering a lot of the responsibility.” This researcher could see the change in countenance of participants when they talked about the pressures and frustrations of their leadership positions. The burdens and responsibilities that came with their leadership positions seem to have had a negative effect on perceived mental health, with them mentioning some increases in anxiety and self-doubt that seemed to stem from these negative emotions.

A couple of the participants mentioned feeling sick from the sun and working outdoors, which caused them and their crews to feel physically and mentally drained. They reported feeling “literal” burnout from the heat, and that their physical exhaustion negatively affected their mental health at times. In the midst of these physical struggles, they came up with solutions to this physical exhaustion, such as teaching their crew members about signs of heat exhaustion and taking frequent breaks.

One of the participants talked about the feelings of complete social burnout that he felt at his second placement during the summer. He and his crew were on a rural island located off of Lake Champlain that was two miles away from the mainland. They were working on putting in puncheon, which is a sort of boardwalk material used to create trails in especially swampy areas. He explained:

“Because the last week at [the island] was extremely difficult. Like a stage of being burnt out completely. And socially, I was burnt out... The location started to become exhausting. I had no alone time, and we're all on an island together.”

Participants all reported some level of frustration, burnout, or stress, mostly from the leadership pressures and a feeling of lack of support in terms of accommodating for a variety of skill levels on their crews. Burnout and stress in the workplace can negatively affect a person’s psychological well-being, sometimes even leading to depressive symptoms (Tausig & Fenwig, 2011).

Three of the participants reported feelings of frustration and stress that seemed to have stemmed from negative feedback, breakdowns in communication, and lack of support. This will be discussed more in the “Feedback and Communication with Superiors” section of chapter four. One participant explained that she wanted to work on receiving feedback in a more constructive way, and one participant said that she was able to find her voice more in the summer and stick up for her crew when she felt like she was not being heard. They each came up with creative solutions to this stress and burnout, at times looking inward in order to figure out why they were feeling that way, an act which is discussed more in the next section.

Self-Understanding and Growth

Self-understanding is defined by the American Psychological Association as “the attainment of knowledge about and insight into one’s characteristics, including attitudes, motives, behavioral tendencies, strengths, and weaknesses” (APA, 2023). From their heightened emotions they experienced throughout the summer, participants in this study reported an increase in self-understanding and personal growth throughout the summer. When faced with emotional highs and lows, the participants in this study seem to have gone inward, questioning their own personality types, strengths, and self-perceptions.

When asked about the main thing he learned about himself in the VYCC, one participant responded: “Learning how much I can improve upon things I might struggle with...And definitely not giving up.” This participant explained how an important part of his character was his ability to not give up when times were difficult and that he can always improve, no matter how challenging things are. Another acknowledged similar sentiments, especially in terms of a realization of just how far he can push himself. Both participants emphasized the growth they felt in their positions with the VYCC. One participant explained: “This experience was very tough, very difficult. But typically, growth and comfort aren't in the same room together. So I'm very happy, very happy that I had this experience working for VYCC.”

One participant spoke about how this experience made him feel more secure in himself and his personality. He had mentioned in his third interview that his parents had told him growing up that “You are the five people you spend the most time with.” They meant that he would take on the personalities of the five people he was with the most. He

explained how he felt that that does not apply to him so much any more. He offered a metaphor of boxes of various colors to show that he felt that, throughout the summer, he had learned and grown from the people around him and their perspectives, but he never felt like he was losing his sense of self. He felt that, no matter how much he interacted with people different from him (yellow boxes), he still ended the summer as his authentic self (a green box). He explained that he felt a great deal of personal growth over the summer that he attributed to being pushed outside of his comfort zone, a feeling that he did not have at his college. He expressed that he felt “comfortable” at college, but that he was not being pushed to grow. The difficulty and challenge of the VYCC experience seemed to have led to that growth, and, in the end, he was very happy with the experience.

Another participant explained that her perception of self has been changing for years, but over the summer it was continuing to change in viewing success as less and less about accomplishing goals and more about doing what one enjoys. She said that this type of perception led to decreased feelings of anxiety and despair.

Two of the participants talked particularly about how their experience in the VYCC led to higher levels of self-understanding, which is closely related to their mental health. One participant acknowledged that she felt that she was pushed really hard this summer, and sometimes too hard, and this caused her to look inward and to examine her own personality type, even taking an Enneagram test to look for answers. From this test, she reported feeling a better sense of understanding of her motivations and the reasons behind her emotions. She said:

“And so I was reading more about my personality. And one of the things with people like me is when I feel inadequate, I tend to work harder and longer to make up for that. So I think that's a dynamic that's been playing out all summer as well. I've certainly been learning a lot about myself.”

Participants expressed their desire to look inward when facing various obstacles over the summer, and how they engaged in self-examination. Another participant felt that the members of her crew were not receiving enough support in this program, which pushed her to be more of an advocate for them and look for help from a contact in the Vermont Adaptive Organization. She explained that she found her voice this summer and realized that she had the ability to advocate for herself and others, and expressed that this self-understanding would particularly come in handy with her work as a paraeducator. The results indicate that participants did experience changes in their self-concepts, meaning their opinions and attitudes towards themselves and their abilities shifted over the course of the summer.

This finding contradicts a part of the findings in Dickerson's (1977) research study on the Youth Conservation Corps and adolescents' self-concept, which found that participants felt less adequate after the YCC program in 1971. This may have stemmed from the selective nature of the YCC program in 1971, with only one youth per school typically being chosen.

Each of the participants seems to have done a level of self-examination throughout their summer experiences. They looked for answers in terms of the emotions they were feeling, the growth they experienced, and the new parts of themselves they were discovering. All of the participants mentioned growth either during their second or

third interviews, including building new skills and discovering personal attributes they were less aware of before the experience.

Confidence

The heightened emotions of the summer led to self-examination and growth, and for most of the participants, this experience led to an increase in confidence. When asked “Have you noticed anything different so far this summer in terms of how you see yourself and your own abilities?” at both the middle and end of their summer experiences in the VYCC, all five participants mentioned confidence in their responses, with most reporting an increase in confidence in themselves and their abilities.

Most participants mentioned an increase in perceived confidence, and although they never used the word specifically, self-efficacy. According to the American Psychological Association, self-efficacy is defined as: “an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977). Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment”(APA, 2009). Each of the participants mentioned a general increase in their confidence to accomplish tasks in the future, the majority of them even connecting them to their future goals or aspiring professions.

A couple of the participants also reported having self-doubt throughout their summer experiences, at times questioning their abilities as leaders. Chronic self-doubt can have negative effects on a person's psychological outcomes (Zhao & Wichman, 2017). One participant reported mixed emotions when it came to her confidence

throughout the experience. She explained that she felt that she was more confident at the beginning of the summer, and there were ebbs and flows in her belief in herself as a leader. She also explained that she did become more aware of the idea that she could do hard things. Overall in terms of self-confidence, she said it was a “mixed bag.”

All five of the participants mentioned confidence or some sort of ability to do difficult things in the future when asked to describe how their image of themselves and their abilities has changed throughout the summer experience. Some participants mentioned the skills they had built over time that are now transferable to their professional or personal goals. One participant even mentioned that he was impressed with the new skills he acquired and he could clearly see them as he updated his resume, which was something members of the VYCC helped crew leaders with at the end of the summer. He hoped to pursue a career in wildlife management, and the skills he built seemed to boost his confidence in that career path. One of his main goals for the season that he mentioned at the beginning was to build leadership skills. He mentioned at the end of the season that he saw an increase in confidence in himself as a successful leader, and he is still hoping to continue to develop those leadership skills.

Psychological researchers have found that incremental beliefs about one’s abilities can help to combat feelings of self-doubt (Zhao & Wichman, 2017). This finding again contradicts the findings in Dickerson’s research study on the YCC experience, for that research found that adolescents’ feelings of adequacy decreased over the course of their YCC experience (Dickerson, 1977).

Another participant hoped to live on a homestead where she grew her own food,

and the skills in growing and harvesting crops have given her the confidence to pursue that goal and to move to a homestead. Another participant is pursuing a career as a paraeducator, and she reported an increased confidence in her ability to advocate for others and to value herself in the workplace. This finding resonates with the 1977 research study on the YCC experience, which found that participating in the YCC led to increases in participants' perceptions of personal worth (Dickerson, 1977).

One participant is still in college, but is hoping to pursue environmental studies and film work in the future. He expressed experiencing major lows during his experience where he did not feel himself mentally present at the work site. Looking back at his experience, though, he explained how this prospect excited him. Being pushed outside of his comfort zone and experiencing these lows made him realize his impressive work ethic and how he can still accomplish tasks when he is going through difficult things. He said:

“For me, I want to continue being pushed, I want to continue saying I have a bad day, but I still have to get up and work and I don't want to do this at all today, but I still have to get up and work because in those moments that pushes you farther than the average person.”

Comfort zone orientation refers to the value an individual places in being pushed outside of his or her comfort zone. People who have lower anxiety and higher self-efficacy tend to place more value in being pushed outside of their comfort zones (Kiknadze, 2021). One of the main principles of adventure therapy is exposing clients to novel experiences that push them outside of their comfort zones (Norton, 2014). The kinesthetic challenges provided in an adventure therapy setting are supposed to reflect the

challenges the client faces in the real world, helping them to build the confidence to overcome personal obstacles (Tucker et al., 2012).

Although the VYCC experience does not fall into the realm of adventure therapy, it has certain elements of it, specifically in how its work pushes participants outside of their comfort zones, encouraging them to work with others to solve problems and to reflect on how those experiences may inform their growth. Although a relatively new phenomenon, adventure therapy has been found to have positive effects on the general mental health of young people (Bowen et al., 2016; Tucker et al., 2012). Overall, the VYCC experience seems to have had a positive effect on participants' confidence and self-efficacy, with most participants reporting that they felt more confident at the end of the experience than at the beginning, particularly in terms of accomplishing their personal and professional goals.

Anxiety

Four out of the five participants mentioned changes in perceived anxiety over their summer experiences. In examining the perspectives from four of the five participants with a focus on perceived anxiety, the study showed mixed results. Two of the participants reported decreases in perceived anxiety, one participant reported an increase in perceived anxiety, and one of the participants did not mention an increase or decrease, but explained that this summer helped her to see how being outdoors leads to a decrease in perceived anxiety and stress that will hopefully help her in her future work. Four of the participants mentioned anxiety as one of the emotions that stood out to them

this summer, and there seems to have been mixed results in terms of whether anxiety decreased, increased, or stayed the same throughout their summer experiences. These findings resonate with the results of other studies on the effects of outdoor education programs that indicate some decreases in perceived anxiety among participants (Davies et al., 2020; Mutz & Müller, 2016).

One of the participants in the study reported feeling “generally less anxious” throughout his summer experience. When asked about the emotions that stood out to another participant, she said:

“What's most notably absent is an emotion I don't experience as much here, which is anxiety. Because I'm out doing things and I'm with people, and we're working on problems, and I'm not getting mental blocks or stuck in my head or be like, Oh, no, I'm going to worry about all these things that might come up. And I mean, this is a decreasing trend, but this has helped with that...Yes, general anxiety is going down.”

This participant expressed that a change in her perceived mental health was an absence of anxiety. She explained that she had intentionally taken on work that she thought would be beneficial to her mental health, and the VYCC proved to be an organization that did just that.

One participant explicitly mentioned an increase in her anxiety, explaining how her increased anxiety was the biggest emotion that stood out to her this summer, and that she had a fear of making mistakes throughout the summer experience. She especially felt anxious about the feedback received from supervisors.

Another participant did not explicitly say that her perceived anxiety either decreased or increased over the summer, but she did report that this summer had helped

her find a new strategy that helped alleviate stress and anxiety. For context, this participant's final interview was a week after her summer experience with the VYCC. She had already had a couple days of training as a paraeducator. She explained that after work one day, "I really started to feel that, rounded shoulders, close chested, like claustrophobia of anxiety. And just like I'm powerless here." She then went outside into the woods near her home:

"You go outside, and you're like, Whoa, the open sky just opened my chest, and I feel okay now. And I know, it's not as simple as that, and I know the problems are still going to be there, but it was a good tool, in the moment to say, okay, it's going to be okay, because the sky is still here. The trees are still green. Then I was able to look at it in the whole situation and [have] a totally different perspective."

There was no consensus on increased or decreased anxiety throughout the participants' summer experiences with the VYCC, but four out of five participants did mention anxiety in their responses. Two reported decreased anxiety, one reported increased anxiety, and one did not report a change but suggested that the VYCC experience provided her with a tool to alleviate anxiety in her future profession. Further on in the chapter, the reasons for these changes in perceived anxiety are examined in more detail.

Perceived Lessening of Depression and Feeling at Peace Outdoors

The final subsection relating to the first research question examined perceived lessening of depression and participants' feelings of peace outdoors. Some first-time participants explained how being outdoors helped with their mental states, and that they

would carry those lessons with them in whatever challenges they face in the future. Others explained that being in nature and outdoors helped their perceived mental health. These findings coincide with a large body of research on the mental health benefits of exposure to nature and outdoor activities, especially for young people (Flom, 2011; Louv et al., 2007; McCurdy et al., 2010; Triguero-Mas et al., 2017).

One participant reported some significant improvements to perceived mental health that have been part of an intentional trend for the past few years in focusing on activities and work that improve her perceived mental health. She shared that she had been “struggling with depression for about 10 years” and she explained to this researcher in her final interview:

“Actually for the first time in six years, I’ve been able to go off my antidepressant. And I think I went through withdrawals. And I’m still feeling great. So that’s new. I like that.”

This participant explained how her past work involved working in a cubicle, which was detrimental to her mental health. But working outside on the VYCC farm “significantly improved [her] mental health.” She described intentionally choosing work for the last few years that she thought would have a positive effect on her perceived mental health, and the experience in the VYCC seems to have been a part of that positive trend.

One participant described feeling depressed during his second project over the summer that involved being on a remote island in Lake Champlain. He was feeling socially and emotionally exhausted. He said that, even though he had moments where he

felt depressed, it actually excited him because he realized that he could still push himself and work hard under those conditions. He saw a level of work ethic in himself that he did not realize he had.

Participants reported that working outdoors had positive effects on their perceived mental health, and provided them with tools for helping with their mental health in the future. One participant explained, “You're still gonna have these frustrating feelings that you felt before the summer, but you have this tool now, which is the environment to go, take off those burdens.”

She described the peacefulness she felt in nature over the summer and how it would have been much more difficult for her to persevere in her work if she were not outdoors. She even shared that her parents said she had a “different aura” when she returned from her summer experience—which is not a phrase they would usually use. She felt less stressed and burdened, and had a tool that she can use when she gets those moments of frustration in her professional work.

Participants reported feelings of peace outdoors, and one reported a significantly positive improvement in terms of depression. This finding coincides with research on the effects of exposure to nature on workplace satisfaction and overall mental health. Other studies have found that exposure to green spaces and natural elements at work can lead to decreased anxiety, stress, and depression (An et al., 2016; Lottrup et al., 2013; Perrins et al., 2021). The next section of this chapter delves into the possible aspects of the VYCC that led to these changes in participants’ mental health.

Research Question Two

2. What aspects of the VYCC lead to perceived changes in participants' mental health?

This research question is addressed in each of the interviews for first-time participants in the VYCC. The previous section focused on explaining common themes in terms of changes in participants' perceived mental health. This section focuses on the aspects of the VYCC that led to perceived changes in participants' mental health. The following sections of chapter four of this dissertation are made up of the common themes extrapolated from the data that were present across multiple interview transcripts.

The first overarching theme that is present in this section is the community aspect of the VYCC. The section starts with the smallest community of the VYCC experience: the participants' crews. The first subsection is "Crew Dynamics," which focuses on the perceived mental health effects of working with a crew of varying personalities and abilities throughout the summer. Crew dynamics seemed to have had mixed effects on perceived mental health, depending on the participant and their positions.

The next section titled "Feedback and Communication with Superiors," focuses on the feedback participants received from project managers, supervisors, and community partners, and the effect that feedback had on perceived mental health. Similar to crew dynamics, feedback seems to have had both a positive and negative effect on the perceived mental health of participants.

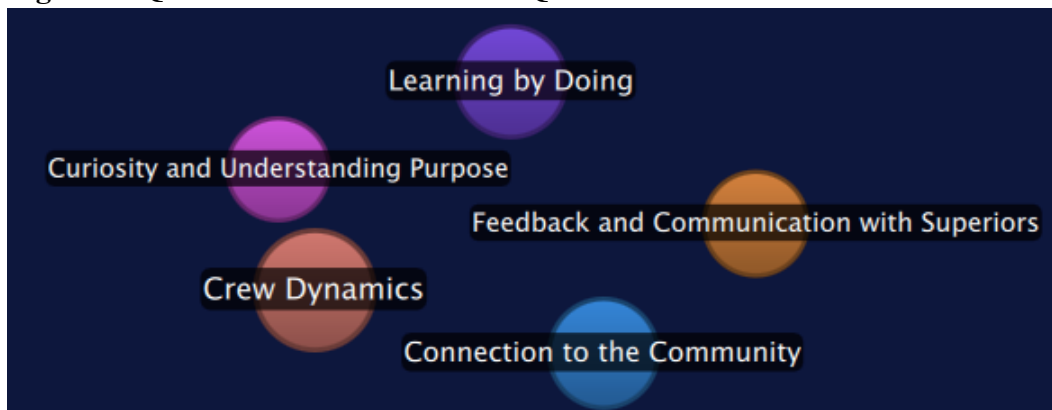
The next section broadens the community, by focusing on the local community in which they were working, or the community that was most affected by their projects. This connection to the local community seems to have had an overwhelmingly positive

effect on the participants' perceived mental health, leading to feelings of pride, humility, and accomplishment.

The next overarching theme in this section is the nature of the work itself in the VYCC. This theme is split into two subsections: "Learning by Doing" and "Curiosity and Understanding Purpose." The projects in the VYCC involved learning on the job and promoting a culture that embraces mistakes as learning opportunities, rather than focusing on getting everything done perfectly. Participants in the VYCC were building skills while they were completing projects. This process seems to have had an overall positive effect on the self-efficacy of participants, and in some cases alleviating perceived anxiety and depression.

The subsection "Curiosity and Understanding Purpose" focuses on participants' reporting that understanding the "why" behind their work seems to have led to feelings of satisfaction and value in themselves, and that the culture of curiosity that is important in the VYCC led to them feeling joy, accomplishment, and hope for a better future. Following is a screenshot of the themes relating to research question two in the Quirkos software.

Figure 2: Quirkos Software Research Question Two Themes



Crew Dynamics

Working closely with crew members of varying abilities and personalities had different effects on the perceived mental health of participants. Some of the participants felt that their crew was tight knit and supportive, while others felt that there were some disconnects between crew members. All of these differing dynamics seem to have had an effect, based on the interviews, on participants' perceived mental states. Each of the participants strove for inclusion in their crews, and they had both victories and challenges in that vein.

From the interviews, it seems that crew dynamics had some effect on four out of five participants' perceived mental health and emotions. All of them noted positive relationships with their coworkers. Three participants specifically talked about crew members and crew leaders supporting each other and having a shared goal and passion. One participant noted: "I would describe my relationship with my crew members as warm, friendly. People in the group care about each other. And give each other emotional support, because people are going through different things at different times." This participant noted that on her crew, there was a sense of shared leadership where the "crew leader" title was not taken seriously. She described her crew as having a "culture of anarchy," in which the title of leader rotated each week. She shared that she felt this sort of dynamic was helpful in building a successful team and led to positive changes in perceived mental health.

Multiple participants mentioned that an aspect of crew dynamics that led to

positive changes in perceived mental health was the shared mission of the crew. Crew members were different in many ways, but, as one participant noted, “But overall, they all share the same underlying personality, which is what they want from this, you know, what their passion [is].” This sense of shared mission seemed to have promoted positive crew dynamics, which in turn led to positive changes in perceived mental health. From the interviews, it seemed that common purpose played a major factor in perceived mental health and the strength of bonds between crew members.

Four out of the five participants explicitly mentioned the differences in personalities and abilities on their crew and how those affected them. One participant explained how the differing crew strengths led to a more successful crew, stating:

“In any group, you need people that are better at different things. To cover more bases. And being good at some things almost usually correlates with being not so good at others. So to try to get a team of ideal people—I think it's the fool's mission.”

This participant explained how the differences in strengths and personalities on her crew made it a stronger, more connected community. They were working more efficiently because they recognized each other's strengths, and leveraged them to accomplish their goals.

Another talked about how getting close with his crew members caused him to “shed his pickiness” of the people with whom he spends time. He expressed that this experience made him more secure in his own identity, and so he could see himself working with and spending time with all different sorts of people in the future.

This difference of personality and abilities of crew members also led to added

stress for some first-time participants, particularly leaders who had a crew with vastly different abilities and felt that they did not receive enough forewarning and support from superiors. One crew had five crew members who required special needs, including one with a learning disability and one with a hearing impairment. The two leaders of this crew expressed a struggle to figure out “how do we be inclusive for everyone, and how do we be efficient with completing the task at hand?” They noticed a divide in their crew based on differing abilities that seemed to negatively affect crew dynamics and their own perceived mental health.

Overall, it seems that some crew dynamics led to increased stress, while other crew dynamics led to more positive feelings of support and comradery. The differences in personalities and abilities could be a struggle for crew leaders, especially when they felt that they lacked the proper support. These differences also helped first-time participants to “shed their pickiness” in terms of their choice of new acquaintances and work to become a more efficient, connected crew. The next section focuses on feedback and communication with superiors, and the effect this larger community seemed to have had on the participants.

Feedback and Communication with Superiors

Four out of the five participants mentioned the feedback and communication with superiors having an effect on their perceived mental health. In the VYCC model, the participants had regular check-ins with their project leads or supervisors, where they discussed the goals they set at the beginning of the summer and their job performances.

This feedback and communication with superiors seemed to have led to a mixed bag of emotions with the participants. Some felt less anxious because of the feedback and some felt more anxious. One felt accomplished when discussing his goals for the summer, but others felt that they were not given enough information about their crew members or support, and that led to stress and to frustration.

The feedback received from supervisors and communications with superiors in the VYCC seemed to have led to different changes in perceived mental health, depending on the nature and style of the communication. It seemed that, when supervisors gave feedback on nitpicky aspects of participants' projects, it led to increased frustration and anxiety. One participant explained:

"I think part of it too, was the feedback that I was getting from my supervisor was a little bit—it was like picky things like you put out leftovers that were a little bit old, or you know, things like that, where...I got so bogged down in the details that I think I took that and kind of drilled down more into like making things perfect, or trying to make them perfect, which is always impossible."

Some of the participants expressed feelings of defensiveness and frustration because of communication breakdowns between crew leaders, supervisors, and project managers. One explained how they were not properly debriefed on the needs of their crew members, which led to stress and frustration. Another crew member reported feelings of defensiveness during his supervisor's visit because he did not feel like the supervisor understood what the crew was going through.

On the other hand, feedback and communication with supervisors seems to have also had a positive effect on participants' perceived mental health when it was in tune

with VYCC's mission of learning from failure, supporting the crew members, and creating a culture of belonging. These were more collaborative, supportive conversations, rather than commands. One participant reported feeling less anxious after receiving supportive feedback from his supervisor that led to him better meeting their expectations. He expressed that his supervisor assured him in his leadership abilities, and inspired him to feel more confident as a crew leader.

Another reported feelings of accomplishment when he worked with his supervisor to set a goal and then finished it ahead of time. Another first-time participant reported a family connection with project partners who communicated and worked regularly with her crew. She said, "But I feel that we were going to help out friends there. Because [the project partners] were there every single day. And they were teaching us and they always brought snacks from their families." The next section expands on this feeling of being connected with the local community who the participants were working with during various projects.

Connection to the Community

Critical service learning is defined as learning that engages participants in acts of service, mainly in their communities, while focusing on the why behind the underlying issues at play that lead to the problems (Mitchell, 2007). All of the participants reported increases in perceived satisfaction and pride that came from doing work that clearly helped the community, and they each seemed to have a strong understanding of the impact of their work on the communities they were serving. This aspect of the VYCC

experience would be considered critical service learning, and it led to a perceived improvement in participants' mental health.

A commonality with all the participants in this study was their connection with the communities in which they were serving, and their understanding of the impact of their work every day. This connection seems to have had a positive effect on their perceived mental health.

Each of the participants who worked for the farm had an extensive knowledge of where their food was going, and the underlying issues that cause food insecurity throughout the state of Vermont and nationally. They all seemed to have a broad knowledge of the issue of food insecurity and how the Health Care Share is an organization that is combatting that issue. One participant noted how she now felt like a "producer," rather than a "consumer," based on the work she was doing at the farm. She had felt "alienated" from her work before the VYCC, but during her summer on the farm, she was doing her part to help combat food insecurity, although she was clear that much more needed to be done in order to solve this major challenge. Understanding these underlying issues and recognizing the effect of their work on food insecure Vermonters seemed to have led to feelings of pride, joy, and humility.

One of the first-time participants described a particularly powerful moment for her over the summer when she delivered fresh vegetables to veterans in a food-insecure area in Vermont:

"And I've also had a lot of feelings of pride and humility delivering health care shares, especially on the Northeast Kingdom route...And there's two veterans, VA clinics that I stopped at for that route. And they are just so appreciative. They

look forward to getting their bag of veggies each week. They say, thank you so much for what you're doing. And I'm like, thank you for your service."

The VYCC seemed to encourage its employees to understand the underlying issues behind their work, as well as to create avenues for connections between crew members and the local communities that they serve. The two-fold effect of learning about the problems that underlie their work in the VYCC and the connections formed with members of the local community that they serve seems to have led to positive changes in perceived mental health.

Members of the conservation crews felt an especially strong connection with the Rutland community, the first community in which they worked. The community's kindness, generosity, and willingness to work closely with the crew seemed to have had a major impact on these two participants. The act of being able to mountain bike on the trail that the crew built was also special and made the crew leads feel proud of their accomplishments. One participant noted:

"I feel so connected to Rutland, which is not something I thought I would ever say. And it's the emotions with that community, lots of gratefulness. I see the generosity there and the people and how authentic they are in their kindness."

Their connection to this community seems to have led to increased feelings of joy, peace, and gratitude. One participant had the opportunity to attend the grand opening of their "Maximum Capacity" mountain biking trail in Rutland, and she explained how she felt proud and a distinct sense of teamwork with members of the Rutland community.

The first three subsections of this part of the chapter focused on the community aspect of the VYCC and how the people involved in the program seem to have affected

participants' perceived mental health. In the final two subsections focused on Research Question Two, the focus is on the nature of work in the VYCC and how aspects of that work affect participants' perceived mental health.

Learning by Doing

All of the participants in this study expressed their positive feelings about how the VYCC promotes an experiential approach in terms of completing conservation and farm projects. One participant explicitly referred to the process of their work as “learning by doing.” This “learning by doing” closely aligns with project-based, experiential education. The Association for Experiential Education defines experiential education as “a teaching philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities” (Association for Experiential Education, 2021). Project-based learning is a student-centered form of instruction that involves students tackling a real-world issue or question using inquiry, collaboration, and problem-solving skills (Kokatsaki et al., 2016). Some expressed how this experiential part of the VYCC model affected their perceived mental health, including increased feelings of self-efficacy and decreased anxiety.

Participants expressed feelings of boosted confidence, an enhanced ability to problem solve, deep learning, and the fun of solving problems when it came to the work they undertook in the VYCC. Three of the participants expressed excitement around

working with others to solve complex problems through a trial-and-error approach. One of the participants said that the culture of the VYCC around trying out different strategies in order to see what works best led to him “relying on [his] judgment versus “doubting [himself].” He found that he was able to give himself grace in his position and not apply so much pressure on himself because making mistakes was just a part of the learning process. One participant even explained how each of her crew members used their particular skills and problem-solving abilities to improve energy efficiency for a particular task.

The nature of the work in the VYCC involves crew members and leaders using various strategies in order to solve a problem or complete a particular project. One participant described this working model as follows:

“But the biggest thing is just, being like, here's a list of general things to do, and we're not going to tell you how to do them work together and figure it out. And I think that facilitates a good team, and good relationships.”

Crews were given guidance on how to use the tools and to build important skills, but they needed to rely heavily on their own judgment and abilities to learn from their mistakes in order to be successful in their projects. When asked about the emotions that stood out to her the most this summer, one participant said:

P3: “Synchronicity?”

Researcher: “Could you explain that a little bit?”

P3: “So there'll be tons of times where I'll just stop thinking in words and just get caught up in the form of what's going on here. And just be part of the process and not worry about anything. So it's a relaxing feeling—kind of feels like you're floating a little bit.”

She reported feeling relaxed and getting caught up in the rhythm and process of the work in a way that led to perceived positive mental health. The project-based, experiential nature of the work in the VYCC seemed to have a positive effect on participants' perceived self-efficacy, stress levels, and anxiety.

Curiosity and Understanding Purpose

Along with learning by doing, another important aspect of the work of the VYCC is to promote curiosity and to understand the purpose of work. This factor from the VYCC program seems to have led to shifting emotions and a positive change in participants' perceived mental health. Some of the participants expressed that there was power in understanding the "why" of their work, and it made them feel grateful, more satisfied, and accomplished in their tasks.

In completing tasks like weeding, harvesting, and trail building, they expressed that they were always aware of why they were doing different manual labor activities and recognized that their work was part of combatting a bigger issue or providing a service to a community. Along with their feelings of being connected to the community, this understanding of purpose connects to "critical service learning," which means completing service projects with a critical awareness of larger issues at play that led to the need for their service (Mitchell, 2007).

The three participants in this study who were working on the farm crew had extensive knowledge of where the food went after they finished growing it. One participant said: "So that is kind of the biggest, I'd say component of the VYCC. The

goal...It's connecting public health and food access.” She then went on to explain how they grow most of their food for the “Health Care Share” program. Through this program, a lot of the fresh produce that was grown on the VYCC farm is sent to health care facilities that apply for this program. The food is “really for people who are prescribed a healthy diet or are pre diabetic or, you know, struggle with food access,” according to one of the participants. Being able to hear from people via email how important the food they received from the Health Care Share was for them and actually participating in delivering fresh produce from the Health Care share led to increased feelings of humility and pride among participants.

The two participants who were leaders on a conservation crew explained the sense of accomplishment and pride that came with the nature of their work on the crew. One described the feeling of “understanding purpose” that came when she saw the 44 drains she and her crew built in action:

“I didn't understand why we were building so many drains until the first day that it rained. And then I saw where they were puddling, and I was like, Oh, that makes sense, where we have built 44 drains...it makes so much sense. And it gives a sense of understanding and purpose to why we are working so hard the way that we are.”

She explained how understanding the “why” behind her work led to positive feelings behind the work that she and her crew accomplished.

This first-time participant then had the opportunity to mountain bike on the new mountain biking trail that she and her crew had built during the summer, as was mentioned earlier. This researcher reached out via text, asking about the emotions that

came with seeing the opening of the mountain biking trail that she and her crew built for the Rutland, Vermont community. She expressed feelings of teamwork, collaboration, and pride during the opening day of the trail. It seems that these feelings stemmed from seeing the purpose behind her work this summer and feeling connected to the local community.

The VYCC is a program that also encourages participants to be curious about their work and to ask questions throughout the summer experiences. One of the participants shared that his crew leader expressed admiration and appreciation for the curious questions he asked and how he was always digging further into the knowledge of the group, so that he could figure out the “whys” behind the projects. Two of the other participants mentioned how impressed they were with the curious questions asked, especially by the younger members of their crews. One participant said:

“Another thing that's noteworthy is that I can see lots of positive changes in the people around me here, I can see them having sparks of curiosity, and engagement, and that's especially heartwarming for the teenagers because... I can see them starting to understand things or continuing to understand things that...it feels like most of the society doesn't.”

It was interesting that the first-time participants noticed positive changes in those around them, as well as in themselves. This mindset of curiosity is one that is encouraged by leaders in the VYCC, and seems to have a positive effect on perceived mental health.

The participant who is going to work in education reflected on how the experience rekindled a curiosity in herself that led to increased perceived confidence, and also a lesson for her as a future educator:

“[This experience was] very confidence building and [I was] advocating for myself and feeling more confident with that. And the crew members were asking questions about different plants...and I was sharing what I could share with them. And then like, oh, I don't know about that. Let's learn it together. And so, it sparks like a curiosity, again, that I hadn't kindled in a while.”

She went on to reflect on how she would try to spark this curiosity in her future students:

“How do I facilitate an environment in which students feel comfortable to ask questions and question me and things that I'm teaching, but also create one in which I feel as though it's a good space to give positive feedback, or corrective feedback? So, wow, I've got a lot to think about.”

It seems that the VYCC model encouraged a culture of curiosity and the nature of the work emphasized understanding the purpose behind the projects. Participants in this study expressed increased feelings of pride, accomplishment, collaboration, and humility, which seemed to stem from these aspects of the VYCC. In the next section of this chapter, the third research question is addressed as to how various aspects of the VYCC can feasibly be brought into the classroom setting.

Research Question Three

3. What aspects of the VYCC can feasibly be brought into the classroom setting?

This research question is mainly addressed in the interviews with alumni of the VYCC who now work with or recently worked with young people in their professions. This researcher completed these interviews in April and May of 2022. From these interviews, this researcher extrapolated common themes of strategies from the VYCC that alumni wanted to bring into or had brought into their current work with young

people.

The first subsection starts with a similar theme from the previous section “Sparkling Curiosity and Igniting Passion,” where alumni of the VYCC described how they took this lesson from the VYCC and brought them into their current work. The next subsection is about what alumni learned in the VYCC in terms of building connections with young people and developing a welcoming community, followed by a subsection on communication strategies. The next section is focused on different definitions of success and embracing a strengths-based perspective when it comes to working with young people. The final subsection is on the “Power of Process,” with alumni sharing the lessons they learned in the VYCC about focusing on the learning process rather than the product and how that comes into play in their current work with young people. This section echoes sentiments expressed in the “Learning by Doing” section of chapter four.

Something that was unexpected in this research is that some of the first-time VYCC participants offered their own suggestions of ways that aspects of the VYCC could be brought into the classroom setting. One of these participants was even training to be a paraeducator, so she already had experience in the educational world. Even though the interview questions asked of the first-time participants were focused on perceived mental health and aspects of the VYCC that may have led to changes in perceived mental health, the first-time participants were aware of the purpose of this research study, so some wanted to add their opinions on how parts of the VYCC could be feasibly brought into the classroom setting. Following is a screenshot of the common themes related to research question three from the Quirkos software:

Figure 3: Quirkos Software Research Question Three Themes



Igniting Passion and Sparking Curiosity

Every alumni participant expressed how the VYCC made them feel passionate or curious about their work. The VYCC had a culture of promoting curiosity and questioning, while also focusing on igniting passion in its crew members, especially for conservation work. Some of them explained how this mindset helped them to ignite passion and spark curiosity with the young people at their places of work.

One important lesson that participants said they learned from the VYCC was the importance of promoting curiosity in their class through showing kids things they have never seen before and encouraging them to discover new things. One participant explained:

“Showing people things that they've never seen before, like, walking paths, plants, and weird things that you find in the woods and being able to say to someone like, Oh, that's a Trillium plant, or let's look at the flower, look at the leaves—this is really cool. This is how you tell it apart from other things. It is really fun for, especially for kids, [because] they love that stuff. They love learning new things, because they like going out and showing their friends or showing their parents.”

Participants expressed how being in the VYCC encouraged them to ask questions about parts of the natural world as well as about the work they were doing, which they encouraged their own students to do as well.

Another participant noted that this sense of discovery can be applied to many facets of the educational experience, not just in outdoor education. An important aspect of education should be discovering new things about one's community. Opportunities for students “to be out in community, whether that's, you know, in your city or town, or, in a broader sense, like the ecological community,” can be very important to their development.

Alumni participants also expressed that a lesson learned in the VYCC that applies to their current work is the importance of helping young people to discover their passions, and to help them to develop those passions. One participant who works at an outdoor adventure camp stated, “I think just knowing that everybody, either has something that they're super passionate about and want to share and want to do good things for the world, or they have the potential to find it.” They explained that their passion is ecology, but that is not true for everyone, and it is important to help young people uncover their passions.

The participants also pointed out that the VYCC taught them ways to make

students feel passionate about learning or completing projects, and that was essentially the power of fun. The majority of alumni participants expressed that one of the main aspects that stood out to them about the VYCC was the fun they had, despite the laborious work and the difficult conditions. The participants in this study expressed that one way to promote passion in students was to give them opportunities to have fun. One participant noted: “It doesn't feel like work anymore if you're having fun, so it doesn't feel like learning if you're, you're immersed in something, and you don't even remember what it is that you're like—of course, I just learned that.”

A main theme that came out of the interviews with alumni of the VYCC who now work regularly with children is that the VYCC experience made them more intentional about trying to encourage kids to think about their own passions and to show them outdoor experiences that could spark an interest within them or make them feel passionate about being involved in their communities. They also expressed how the VYCC experience inspired them to want to spark curiosity within their students, and to encourage them to ask questions both inside and outside of the classroom so that they can better understand academic concepts or aspects of the natural world.

Building Connections and Developing a Community of Belonging

Each of the alumni participants mentioned their positive relationships with other members of their crews when asked about the parts of their VYCC experiences that stood out to them the most. They mentioned that the community aspect was important to them, and that they try to build connections with the young people with whom they work using

strategies from the VYCC, such as facilitating social emotional learning opportunities, making the effort to get to know their students' interests, finding opportunities for fun, especially when the work is difficult, practicing empathetic listening, showing gratitude, and creating a sense of belonging for students from all different walks of life.

One of the main themes that came out of all of the alumni interviews, and even an interview with a first-time participant, was how the VYCC taught them strategies for building connections and to create a community of belonging that they now bring into their work with young people. One participant explained that her VYCC experience influenced her to approach people with differences with curiosity rather than judgment and that finding opportunities for fun can be a great way to build community among young people. She said:

“I think one of the most important ones was that our crew came from a lot of different walks of life, and it was one of those things where, we were really taught...it was an opportunity for all of us to be curious, interested in people other than...nervous or uneasy around people who are different.”

This participant especially emphasized how the VYCC taught her important lessons in connecting with people different from herself.

Two of the participants emphasized the importance of treating young people as holistic beings and how they tried to find ways to show their students that they are valued and acknowledged. One of them stated:

“I think, again, working in the VYCC really provides a lot of opportunity for learning how to best connect with people, young people...So I think it's like a lot of figuring out what it is that makes people feel valued and feel like they can contribute.”

She explained how participating in the VYCC showed her the power of gratitude and acknowledging hard work, and she hoped to instill those same values in her students. Creating a welcoming community involves acknowledging young people as holistic beings and getting to know them through their interests and passions, even if these are outside of the academic realm.

Another alumni participant focused on how his crew leaders made him feel heard and that he belonged, and so now he tries to make his students feel the same way by being present with them and asking them about their interests. Another alumni participant explained how she has reflected on how she wants to create a culture of curiosity in the classroom and make all of her students feel supported. Overall, participants seem to have learned from their time in the VYCC how important it is to make connections with young people and to create a community of belonging in their own places of work, and the VYCC provided strategies to accomplish those goals.

One of the first-time participants in this study had been training before her VYCC summers to be a paraeducator, and she shared her own reflections on how to build a healthy community in her future career. This participant reflected on how the community partners with whom she worked made her feel like part of their family, and how she wanted to emulate that in her classroom: “We were just...treated as family. And so thinking about also being interested in going into education, how do I involve the community or make the classroom community so that students feel supported?”

One alumni participant explained how he felt similar emotions with his own crew ten years ago in the VYCC, and that he hopes to emulate that kind of supportive

community in his own classroom: “I'd almost describe it as like making kin-like kind of creating a community or family with the work.” He explained that this kind of community happens on purpose: it involves supporting each other and being aware of each other's needs and passions.

Communication Strategies

Most of the alumni participants mentioned how their VYCC experience helped them to learn strategies in terms of effective communication with young people. One participant noted that he learned that “clear and succinct communication” has different meanings, depending on with whom you are communicating. While in the VYCC, his crew leaders were able to effectively communicate instructions to people of varying abilities through clear, simple instructions. This participant explained that he tries to use this same communication strategy with his elementary school students, keeping in mind that their vocabulary may be more narrow and so he needed to communicate on their levels.

Another alumni participant described her experience in the VYCC working with people on the farm who were visually impaired. She described this experience:

“[It was an] amazing learning experience, just to be able to describe something or to realize how much description is necessary for the certain outcome that you're looking for[working with the visually impaired] made me really realize the power of, of words, basically and being really descriptive.”

She said that she takes this lesson into her current work, taking the time to clearly explain instructions using details and reiterating it in different ways if young people do

not understand at first.

Lastly, one alumni participant talked in detail about empathetic communication strategies that they learned from their time in the VYCC. This involved them slowing things down when someone on their crew seemed to be having a particularly bad attitude. They asked about how they were doing. It was then that the crew member revealed that they were going through some personal medical issues and that was why they were feeling off. This participant described how they now use this strategy in their work with young people:

“It’s helped me with empathetic communication as well. If somebody is saying something rude to me, I would take a step back and be like, What’s making you feel this way right now? And then I would communicate from there—that works a lot with the kids as well, because I’m like, maybe this kid has been dehydrated all day. And we need to focus on that, before I focus on the words that you’re using...I think VYCC helped me to be very aware of how other people are feeling as they talk to other people.”

Alumni participants expressed different strategies they learned from the VYCC to communicate with young people, including being aware of the audience and their prior knowledge, explaining things in simple, clear terms, using extensive detail when necessary, and practicing empathetic communication.

Different Definitions of Success and Strengths-Based Perspective

The participants in this study expressed that another important lesson they took from their VYCC experiences was to recognize that each person has unique strengths that can be leveraged to accomplish goals and to develop skills. They seemed to have been

inspired to take on a strengths-based approach in their classrooms. A strengths-based perspective is assuming that every person has strengths and attributes that can lead them to success in many different areas in life (Lopez & Louis, 2009).

Participants expressed that people on their crews had much different strengths and skills, and that was a positive in terms of accomplishing the goals of the crew. They also explained how the VYCC helped them to recognize that success can mean a variety of things, and it is important for them to teach kids that the typical definition of success in our society is not the only type of success they can achieve. They expressed how they take that mindset into their work with young people.

Participants in this study expressed that the VYCC experience taught them that there are different definitions of success and that it was important to see themselves and their students from the perspective that everyone has strengths, especially with those who have differing abilities or who are neurodivergent. This mindset seems to have permeated their work with young people. Participants expressed that they felt more capable of learning new skills and completing important projects after their VYCC experiences. They learned strategies for engaging young people of different abilities, through seeing people for their strengths, and being intentional about recognizing young people's accomplishments.

One of the alumni participants described an important lesson she took away from the VYCC: "One of the things I took away was having standards of success for yourself that may not match, you know, what society at large has for you." This sentiment was echoed by most of the other alumni participants. She said that in her current work, she

had the goal of showing young people that there were many different types of jobs, and that she wanted to help them discover ones that are just right for them. She especially felt passionate about introducing the students to possible outdoor jobs through AmeriCorps, but really she just wanted to instill in young people the idea that success can mean a lot of different things, and there is a job out there that is right for them.

Another participant expressed how, in her current work as a farm-to-school coordinator, she noticed that outdoor education can work really well with students who do not necessarily thrive in the typical classroom environment. She learned this lesson first in the VYCC, especially when working with young people with learning disabilities and differing physical abilities. She asserted that she took that lesson to heart in her current work by keeping in mind that everyone can be successful in learning, but sometimes it just takes more of a hands-on experience:

“I do work with a few individuals, either based on their needs in school—so a few students that, the regular, or I guess, normal school day is just really challenging for them, that I work with. And so I think I have to use a lot of the skills that I learned at VYCC with that individual to be able to try to engage them in projects and entice them to do things and realize that, again, they can do it.”

Multiple alumni participants explained that they learned in the VYCC that people will have varying abilities and perspectives, but everyone has something important to offer. They mentioned that they were especially aware of that lesson when working with a heterogeneous group of young people who had differing strengths and needs. Although they did not explicitly use the phrase “strengths-based perspective,” they described developing this kind of mindset toward young people:

“And I still think that the biggest things that stand out are just the experiences I was able to have with different youth. So different youth, as in maybe some folks with different learning abilities, or of just physical abilities, and also just experiences...The diversity of the youth that I experienced, I think, really helped to shape my knowledge now. And I guess how I would go forward, or how I use those skills in my work now.”

She went on to explain how she worked with a young person in the VYCC who was on the Autism spectrum. Through this experience, she saw that people with differing abilities have heightened other senses, and that it was important to help young people uncover their strengths. Other participants talked generally about how they worked with people of different abilities and strengths, and they were able to see that everyone had something valuable to offer on their crew. They explained how they took that mindset into their current work with young people, helping their students to discover their strengths and to build upon them.

One of the first-time participants expressed a time during her VYCC experience that showed how the different strengths on her crew allowed them to be more successful. It is important to note that this participant did not have experience working with young people like the alumni participants do, but her idea is related to the strengths-based perspective of the alumni participants. She described how her crew used each of their different strengths to improve efficiency for various projects on the VYCC farm. She expressed that the best teams were made up of people of different strengths, which seems to be a common theme in the VYCC. Alumni and first-time participants alike shared that the VYCC helped them to realize that everyone has strengths that can be leveraged to accomplish goals and that it is important to teach young people that there is not just one

definition of “success.”

Power of Process

An aspect of the VYCC that came up in multiple interviews, including one from a first-time participant, was the process by which projects in the VYCC were completed. This subsection echoes the sentiments in the “Learning by Doing” section of this chapter. The participants explained how they completed large-scale projects during their time at the VYCC through taking it one step at a time, reflecting on each step, practicing patience, and using their mistakes as learning opportunities. They had the opportunity to try new strategies if original strategies proved inadequate and to solve problems through trial and error. Participants in this study suggested some ways in which this experiential, project-based, reflective approach affected them during their times in the VYCC and how they brought it into their work with young people. The alumni participants also expressed how they took these lessons to heart when trying new things themselves.

Alumni participants expressed how the VYCC projects were more about the “process” than the “end product,” and their experiences in the VYCC influenced their different approaches to teaching young people and learning new things themselves. They expressed how the VYCC taught them to “learn as we go,” and to not agonize over making mistakes but instead to learn from them and to move forward.

Although they did not explicitly use the phrase “project-based learning,” they described the elements involved in this type of learning, such as describing “how gratifying it is to do something with a tangible result” and “I just felt really gratified by

the projects that we were working on and getting the opportunity to start something with this crew, have a vision and see it through to fruition.” Participants explained how they tried to promote this approach to learning in their own places of work, especially encouraging students to not be afraid of making mistakes and participating in meaningful projects.

Another important part of the VYCC process that alumni brought into their work with young people was reflection after a project or learning experience. One alumni noted how they learned the rose-thorn-bud strategy in the VYCC, and they still used it with their campers. This strategy involves campers reflecting on their days by saying the highlight of their day (the rose), a challenge (the thorn), and something they are looking forward to (the bud).

A couple of other participants emphasized the importance of debriefing with young people, asking them what went well and what could be improved for the next time. They said that this helps them to improve their own practice and for their students to reflect on what they learned. A part of the learning process that multiple participants mentioned learning from the VYCC was patience, a skill invaluable to all those who work with young people. They said that the nature of the work in the VYCC fostered patience because they had to learn as they worked on the projects and accept that their work would not be perfect all the time.

One of the first-time participants suggested a learning experience for young people that she came up with through her work on the farm, and shared it. This participant does not have extensive experience working with young people like the

alumni participants, but she wanted to share a strategy that worked well with young people in the VYCC. She described a scenario in which young people would be given a plot of land, study it for a certain amount of time, and try to grow various plants on it and cultivate it through using prior knowledge and trial and error. She reflected on her own experience in school, and how this type of project-based learning would lead to deeper learning:

“And that would have some intrinsic learning value that sticks with you, as opposed to, I know when I was in school, it was a lot of memorization and stuff like that. So most of the time, I just didn't pay attention in class and took however many minutes to memorize what I needed to know, in the morning before school started and that didn't facilitated much learning...it didn't link the knowledge to the fundamental structure of how it was obtained, [it] didn't have the underlying theory attached to it. So...I knew a lot about math and science and history. But I didn't. It doesn't facilitate the deepest understanding. So I'm saying, basically: learn by doing.”

There were several lessons that research participants took from their time in the VYCC and then brought into their work with young people that had to do with the process of learning. Some suggested that it is important for young people to “learn by doing,” and focus on the process and skills learned, rather than the end product. Alumni and first-time participants alike noted how this was counter-intuitive to the typical American education system, but they think, more valuable to achieve deeper learning. Two alumni participants emphasized the importance of taking the time to reflect on what went well and what could be improved in the future, and how that mindset is important for them to have and to model to the young people with whom they work.

They emphasized the satisfaction of working on a project from beginning to end

with a tangible result. Several of the participants mentioned that working for the VYCC was a lesson in patience and making adjustments in their own teaching when things don't go right the first time around. These lessons could apply to students and teachers alike.

CHAPTER FIVE

DISCUSSION

Introduction

In this chapter of the research study, the research problem, key results, implications for policy and practice, limitations of the study, implications for future study, and conclusions are discussed. Leading up to this chapter, the research study has been introduced, there is a review of the relevant literature, there is a description of the methodology, findings are explained, and, in this chapter, there is a discussion of the results and implications for practice and future research.

Readers are first reminded of the problem of practice that led to this research study: the state of youth mental health in the aftermath of the Covid-19 pandemic. This chapter then discusses the key results of the research study. This researcher labels certain results as key results because they either closely relate to the research questions, were prevalent across the majority of interviews, or were included in the interviews with both first-time participants and alumni participants. These key results include:

- The VYCC's Perceived Positive Effect on Confidence and Self-Efficacy on Participants in this Study
- The VYCC's Perceived Mixed Effect on Anxiety and Depression on Participants in this Study
- Building Connections and Creating a Culture of Belonging in the Classroom

- Igniting Passion and Sparking Curiosity
- Bringing Community-Based Projects and Critical Service Learning into the Classroom
- Learning as an Experiential, Project-Based Process
- Promoting Different Definitions of Success and a Strengths-Based Approach

Each of these key results are situated in the current literature surrounding youth mental health, critical service learning, project-based learning, outdoor education, student-teacher relationships, cultivating curiosity in the classroom, and the limited research on the Youth Corps experience, particularly in terms of its effect on youth mental health (Creed et al., 1996; Dickerson, 1977; Driver & Johnson, 1984; Hamilton & Stewart, 1978; Sayegh et al., 2019).

The chapter then covers implications for policy and practice in the classroom. In other words, how the lessons or strategies can be taken from the VYCC into the classroom setting, closely aligning this section with the third research question: “What aspects of the VYCC can feasibly be brought into the classroom setting?” Next, this chapter outlines the limitations of the study, including the limited pool of participants, the lack of diversity among alumni participants, the risk of social desirability bias, and the participants’ differing positions in the VYCC.

The next section in the chapter focuses on implications for future research studies that were informed by the limitations of this study. This research study had multiple implications for future research, including a more widespread quantitative study on the

mental health effects of participating in a Youth Corps program and how these experiences affect the long-term mental health of young people. Another possible study that would expand on this research, especially around the understudied topic of the mental health effects of project-based learning and critical service learning, would be a study in which teachers try using a strategy that seemed to have a positive effect on VYCC participants, and survey the students before and after on their feelings on the project and the effect it had on them. Finally, this chapter ends with the conclusions drawn from this research project as a whole.

The Problem

The main problem at play here is the state of youth mental health coming out of the Covid-19 pandemic. The disruption of children's daily routines, isolation, and fear of infection during the Covid-19 pandemic left many of them feeling lonely and anxious about an uncertain future. Studies have already found that this disruption to youth development will lead to higher rates of anxiety, depression, and Post-Traumatic Stress Disorder (PTSD) (Adegboye et al., 2021; Cielo et al., 2021; Hawes et al., 2021; Kauhanen et al., 2022; Racine et al., 2021).

With the current state of youth mental health, it is an important time to conduct research on youth organizations that may already be having a positive effect on youth mental health and examine whether strategies from these organizations can feasibly be brought into the classroom. The Vermont Youth Conservation Corps is a youth organization that uses project-based learning, outdoor education, and critical service

learning, strategies that have been found to boost self-efficacy and engagement, and decrease feelings of anxiety and depression (Capraro et al., 2013; Davies et al., 2020; Grant, 2002; James & Williams, 2017; Mackenzie et al., 2017; Marchant, 2019; Mutz & Müller, 2016). The goal for this phenomenological research project was to examine the effect that the VYCC had on participants' perceived mental health, the strategies that may have led to those changes, and the feasibility of bringing those strategies or lessons into the post-pandemic classroom.

The three research questions that the study investigated are as follows:

1. How does participating in the VYCC affect participants' perceived mental health?
2. What aspects of the VYCC lead to perceived changes in participants' mental health?
3. What aspects of the VYCC can feasibly be brought into the classroom setting?

A qualitative phenomenological research design was used in this study. To address the first two research questions, this researcher interviewed five first-time participants in the VYCC throughout their summer experiences, the focus of the questions being the effects the VYCC experience had on their perceived mental health and the strategies that led to those effects. This researcher interviewed these participants three times throughout their summer experiences, meeting them at their work sites at the beginning, middle, and end of their experiences.

To address the third research question, this researcher interviewed five people who had participated in the VYCC in the past who now work or had recently worked

with young people in their place of work. In these interviews, this researcher focused on aspects of the VYCC that alumni participants took away from their experiences and brought with them into their current work with young people.

The interviews with both the first-time participants and the alumni participants were transcribed using the Otter AI software and then double-checked by the researcher to ensure accuracy. This researcher then used Quirkos software to uncover common themes across the interviews. The full results of this research study can be found in chapter four. In this next section, the key results from this research study are discussed.

Discussion of Key Results

To identify the key results of this research study, this researcher identified themes prevalent in a majority of interviews that closely related to one or more research questions or themes that applied across the first-time participant interviews and the alumni interviews and closely related to one or more research questions.

1. The VYCC’s Perceived Positive Effect on Confidence and Self-Efficacy on Participants in this Study
2. The VYCC’s Mixed Effect on Perceived Anxiety and Depression on Participants in this Study
3. Building Connections and Creating a Culture of Belonging in the Classroom
4. Igniting Passion and Sparking Curiosity
5. Bringing Community-Based Projects and Critical Service Learning into the Classroom
6. Learning as an Experiential, Project-Based Process
7. Promoting Different Definitions of Success and a Strengths-Based Approach

Table 4: Key Results

The first two key results most closely relate to the first research question and the problem of practice. These key results were brought up by all five first-time participants in the research study, as they all reported a change in perceived mental health in these categories. This study had a small sample size of participants, which allowed for more in-depth interviews to examine the perceived changes to mental health and the aspects of the VYCC that may have influenced those changes, but it is difficult to say that these results would apply to the entire organization. The results suggest that the VYCC may play a part in positively affecting perceived mental health, but a more wide-reaching study of the organization's participants would be needed in order to confirm these results. The perceived effect that the VYCC had on the confidence and self-efficacy of participants in this study seems overall positive, with four out of five participants reporting an increase in confidence in themselves and their abilities, with one participant reporting more of an "up and down" in terms of her self-confidence throughout the summer. This research study found mixed results in terms of the VYCC's perceived effect on anxiety and depression on participants in this study. Four out of the five participants mentioned that their perceived anxiety was affected, and while depression was only explicitly mentioned by two participants, it was hinted at by the others using different wordings. These two key results were closely related to the problem of practice, that being the current state of youth mental health.

This researcher found that several of the strategies from the VYCC that led to perceived positive effects on mental health of first-time participants were also brought up in the interviews with the alumni participants as strategies they brought into their current

work with young people. These key findings (#3–7) were closely related to both the second and third research questions and were especially relevant in terms of the practical implications of this study. Each of the strategies in the key results seemed to have had a perceived positive effect on participants' mental health, and the alumni participants identified them as strategies in their current work with young people or important lessons they learned from their VYCC experiences. This chapter begins with the key results directly related to the first research question (#1–2), and then the key results that are related to the second and third research questions (#3–7).

1. The VYCC's Perceived Positive Effect on Confidence and Self-Efficacy on Participants in this Study

This researcher's original hypothesis was that participating in the VYCC would lead to an increased belief in participants' beliefs in themselves and their abilities. According to the American Psychological Association, "Self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments" (Bandura, 1977). Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment" (APA, 2009). All of the first-time participants in the study reported how they felt an increase in their abilities to accomplish specific personal and professional goals, even if they seemed daunting at first.

Participants expressed an increase in confidence in terms of accomplishing difficult tasks, and some of them explained that they even felt more confident in their

future career choices and aspirations. One participant expressed that she got more confident “in the area of physical work and producing things,” which has helped her to accomplish her goal of living on a homestead. Another participant wanted to work in wildlife management, and he explained that this experience helped him to build skills that make him feel more confident in that career aspiration. A participant who was in college explained how he wanted to pursue environmental studies and film, and this experience taught him that he does have the bandwidth to pursue that career and to push his limits.

Social cognitive educational theorists who subscribe to the expectancy-value theory of achievement motivation contend that an individual’s expectation of whether their efforts will result in success or failure, as well as the value they place in the learning task, influence both their motivation to be successful and their academic achievement (Wigfield, 1994). A student’s self-efficacy in relation to a new learning task or particular subject influences his or her motivation, which ultimately influences his or her academic achievement in that particular area (Samsudin et al., 2020; Shin, 2018). A student’s efficacy in his/her ability to accomplish a goal or learn a piece of content tends to positively affect his or her effort, persistence, and perseverance surrounding that particular area of study, which, in turn, affects his or her academic achievement (Bandura, 1986; Pajares, 1996). According to Bandura’s social cognitive theory, students who have lower self-efficacy are less likely to be motivated and grow in a particular subject (Samsudin et al., 2020).

The collaborative, project-based nature of the VYCC programming may have influenced the participants’ beliefs in themselves and their abilities to accomplish their

future goals, especially those closely related to the work in the VYCC. In a study that focused on the effect of project-based learning on the self-efficacy of minority students in engineering, researchers found that participants made significant gains in learning outcomes and higher efficacy around engineering tasks and a future profession, as a direct result of the project-based, collaborative experience (Chen et al., 2015). In another study, researchers found that implementing STEM project-based learning in a high school physics course improved students' self-efficacy in physics achievement in the future (Samsudin et al., 2020). Four out of the five participants explained that their personal or professional goals aligned with the domain of work in the VYCC, and the work they completed over the summer led to increased confidence in achieving those goals. Previous research on the interplay between self-efficacy, motivation, and achievement may suggest that one of the reasons behind this increase in their efficacy to accomplish those goals stemmed from the project-based, collaborative, domain-specific projects in the VYCC (Chen et al., 2015; Bandura, 1986; Pajares, 1996; Samsudin et al., 2020; Wigfield, 1994).

This result also aligns with a 1984 study on the potential benefits of participating in a Youth Conservation Corps program, in which participants reported that their YCC experience led to an increase in self-confidence as a result of their time in a YCC organization (Driver & Johnson, 1984). It contradicted one result of a research study on the YCC and adolescents' self-concept (Dickerson, 1977). A possible explanation for this discrepancy lies in a difference in the selection process and mission between a Corps network program in 1971 versus one in 2022. From Dickerson's article, it seems that in

1971, the YCC was highly selective and would oftentimes only choose one student from a school to participate in the program. This may have led to the participant feeling inadequate when they could not immediately succeed at accomplishing a task or completing a project. A principle in the VYCC's mission is to "lean into challenge and learn from failure." The VYCC seems to have more of an emphasis on growth than on perfection and selectivity, which may have informed the discrepancy between this study's findings and the findings of Dickerson's research study (Dickerson, 1977).

Other outdoor learning experiences have been found to increase self-confidence among participants, particularly those who struggle to succeed in the traditional classroom setting (Barton et al., 2016; Caldas et al., 2016; James & Williams, 2017). The increase in perceived self-efficacy seen in participants resonates with a 1996 research study on the mental health effects of long-term unemployed Australian youth working in the National Parks and taking classes through the Youth Conservation Corps (Creed et al., 1996). This study found that participants' self-esteem significantly improved over the course of their work, which can be closely related to their self-efficacy (Creed et al., 1996). Most of the participants in this research study reported an increase in self-efficacy and implied that they have an increased belief in their abilities to accomplish personal and professional goals.

The VYCC's approach to completing projects involves allowing participants to make mistakes and learn from them, encouraging them to learn from each other, and to understand the impact that their work has on their community. A person's self-efficacy tends to change the most during the process of skill development, and mastery

experiences are found to be the most powerful in increasing self-efficacy when a person is able to overcome obstacles and difficulties, and persevere to complete the task or to learn the new skill (Ellen & Frank, 2008). In a study on restructuring a curriculum in a freshman-year seminar from a more traditional curriculum to a project-based curriculum with real world applications, it was found that the project-based learning approach led to a statistically significant improvement to the college students' levels of academic self-efficacy (Krsmanovic, 2021).

Social models also play an important role in self-efficacy development. When a person sees an adult or peer struggle through problems until they accomplish a task, it can have a positive effect on the observer's self-efficacy. On the other hand, when a person sees an adult or peer attempting to master a skill, while pretending to never make mistakes, it has a negative effect on the observer's self-efficacy (Ellen & Frank, 2008).

The participants in this study certainly faced multiple obstacles, from building 44 drains in the deep woods, to farming in the searing heat, to laying out heavy wooden planks on a remote island, but they were working for an organization that encouraged learning from mistakes and persevering no matter the obstacle. Participants also acted as or observed crew leaders who modeled this kind of approach. These aspects of the VYCC may have led to increased self-efficacy among participants, especially in terms of their professional goals.

One participant reported feeling depressed, especially when he was feeling socially and physically exhausted at his remote worksite on an island in Lake Champlain. He explained how this depressed feeling was not necessarily all bad though, because he

was able to come to the realization that he could continue working, even when he was feeling low:

“I didn't realize that I could work while being that depressed, [and that] was very surprising. And honestly, even though that sounds really sad, I find that very exciting. Because I do plan on doing a lot of environmental studies and film work in the future. And that kind of trains me and proves to me that I can work in those situations. I can work on highs...but even when I'm low, I can still get up, have breakfast at 6:30–7:15, and start working at 8:00.

Being on a remote island on Lake Champlain was a unique experience for this VYCC crew, but on the island, this participant seemed to have learned a valuable lesson about his ability to work through difficult situations. This participant reported significant increases in his awareness of his own work ethic and just how far he can push himself to complete a project. He seemed to have experienced a large increase in his self-efficacy, despite having emotional lows, for he overcame difficulties, both physically and emotionally, to accomplish major tasks (Ellen & Frank, 2008). The project-based nature of the challenging work in the VYCC seems to have greatly influenced this change.

Building up resilience and self-efficacy in young people is an important part of an educator's job, a job that is made even more difficult when young people feel uncertain and worried about their futures. It seems that the VYCC had a positive effect on participants in this study's belief in themselves and their abilities to accomplish their personal and professional goals, even in a highly uncertain world.

2. The VYCC's Perceived Mixed Effect on Anxiety and Depression on Participants in this Study

This research study had mixed results in terms of participants' perceived levels of anxiety and depression. These results were especially noteworthy because anxiety and depression are prevalent mental health struggles among young people, and the pandemic seems to have exacerbated anxiety and depression among young people (Adegboye et al., 2021; Cielo et al., 2021; Hawke et al., 2020; Hawes et al., 2021; Kauhanen et al., 2022; Racine et al., 2021). This researcher's original hypothesis was that participants would report decreasing levels of stress and anxiety throughout their summer experiences. Four out of the five participants mentioned their changes in perceived anxiety over their summer experiences. Of those four, two of them reported decreases in their perceived anxiety, one of them reported an increase in perceived anxiety, and one participant did not say that her anxiety went up or down during the summer but did mention how she discovered strategies this summer to help mitigate her anxiety in the future. Overall, there was a mixed bag of participants' responses in terms of their perceived anxiety.

Studies have found that outdoor education programs lead to decreased levels of anxiety and depression among participants (Davies et al., 2020; Mutz & Müller, 2016), while others have found that young people's general time outdoors can lead to a decrease in anxiety, lessening of depression, and improved subjective well-being (Jackson et al., 2021; Piccininni et al., 2018; Wells & Evans, 2003). This study's results seem to align with the results of these studies, with some participants reporting decreased levels of anxiety. This decrease in anxiety seems to have come from a few different sources,

including the project-based learning model used in the work, the supportive bonds with fellow crew members, and the opportunity to connect with nature.

First-time participants and alumni participants alike reported that the nature of the work, which involved addressing a real-world issue, acquiring skills as they completed the projects, learning from their mistakes, and reflecting on their successes and failures, led to them feeling more capable and less anxious, with one participant even noting that it felt like she was “floating” as she was doing the work. There is a larger body of research on how being outdoors and having supportive bonds with adults and peers can decrease anxiety, but this research project adds to the limited body of research on project-based learning’s effect on young people’s perceived anxiety (Davies et al., 2020; Erdem, 2012; James & Williams, 2017; Krane, 2016; Miguel & Carney, 2022; Miller-Lewis, 2014; Mutz & Müller, 2016; Zhu, 2022). The project-based nature of the work in the VYCC seems to have led to decreased perceived anxiety among the participants in this study, especially being that the work was in an outdoor, non-restrictive setting.

The one participant who explained that her anxiety had increased over the summer told this researcher that it was mainly because of the negative, nitpicky feedback she received from her superior and the leadership pressures she felt to do things perfectly. These types of pressures seemed to be a result of her leadership position in the VYCC and the feedback she received not being in line with the VYCC’s mission.

Only two of the participants explicitly expressed feelings of depression or being depressed, with one participant reporting a significant decrease in depression and the other participant reporting feeling more depressed than usual at certain points of the

experience, but that he learned that he could work and push himself even when he was feeling low.

One participant shared that she has been struggling with depression for ten years. This summer, she was able to go off of her antidepressant for the first time in six years. She explained how this improvement in mental health was part of a series of personal decisions to partake in work she thought would improve her mental health, and that seems to be the case with the VYCC experience. The nature of the work in the VYCC seemed to have influenced this change in her perceived level of depression.

3. Building Connections and Creating a Culture of Belonging in the Classroom

The rest of the key findings were consistent in both the first-time participant interviews and the alumni interviews. These findings consisted of aspects of the VYCC that seemed to have led to perceived positive effects on participants' mental health and that have already successfully been used in the classroom setting or were praised by alumni of the VYCC.

The strategies of building positive, trusting relationships and developing a culture of belonging in the classroom are closely related to the educational pedagogy of culturally responsive teaching. In Zaretta Hammond's book *Culturally Responsive Teaching and the Brain*, she describes the importance of "learning partnerships" and "community building" in her "Ready for Rigor" framework meant to help teachers to become more culturally responsive (Hammond, 2015). Relationships are seen as just as important as the curriculum in a culturally responsive classroom. Positive relationships

between students and teachers keeps the “fight or flight” amygdala section of a student’s brain calm, so that higher order thinking can occur in the prefrontal cortex (Hammond, 2015).

Community building refers to the creation of an intellectually and physiologically safe classroom environment, one where students feel comfortable taking risks and have the ability to move from dependent to independent learners (Hammond, 2015). In reflecting on their VYCC experiences, alumni participants emphasized the importance of relationship building and community development, two important factors in developing a culturally responsive classroom.

The alumni participants emphasized how the VYCC model helped them to make authentic connections with their crew members because they were given the opportunity to discuss their interests and passions. One main principle of the VYCC experience is “community,” which is defined as “creating a culture of belonging” (VYCC, 2023). The alumni participants explained that, in working with young people in their current professions, it was important to focus on community building first before getting into academic material. Educational theorist and scholar Gloria Ladson-Billings contended that culturally responsive teachers have a critical awareness of their students’ cultures and interests, and they utilize this knowledge in the learning process (Ladson-Billings, 1995).

One alumni participant noted:

“I think just honoring humans as holistic beings and knowing that people benefit from—I think everyone benefits from—building a positive community. And that the other things are not going to happen without that. The other things being like, you know, completing the project or learning the material.”

Other alumni participants explained how they felt greatly valued in the VYCC and that their crew leaders promoted a sense of belonging where everyone could feel appreciated for their work and attributes. They expressed that they hoped to show the young people with whom they work that they all bring something valuable to the table. Another participant described the type of community he felt in the VYCC, and how he would like to emulate it in his elementary classroom through learning about his student's passions and showing that he cares about their interests and goals.

This alumni participant's experience in the VYCC was 11 years ago, him being the participant with the longest time between his stint and present day. Even though his experience was not as recent as those of the other participants, when he talked about his crew leaders, he spoke as if he had just talked with them the other day. His eyes lit up talking about them, explaining in detail multiple momentous conversations he had had with them. His perspective echoes the research of Dittman & Forstmeier (2022) who studied the relationship between the well-being of adults and their relationships with teachers during their childhoods and adolescence. They found a strong relationship between teacher-student relationships during childhood and adults' subjective well-being, illustrating the immense impact of teacher-student relationships on students' long-term well-being (Dittman & Forstmeier, 2022).

A part of the VYCC that seems to have had a perceived positive effect on mental health on participants in this study was the supportive, authentic connections the first-time participants made with other members of their crews. First-time participants noted that, although they all had different personalities, they had a shared goal, such as

harvesting food, or completing a mountain biking trail, so they were able to effectively work together, driven by that same aspiration. Because they were working together on meaningful projects that they all cared about, they trusted each other and helped each other when they needed it. One first-time participant noted:

“We live in a world where everybody's different. And differences don't mean a negative thing at all. Differences don't mean you can't get along with somebody, differences just mean you're different. And you can still get a project done.”

This is where an important aspect of the VYCC comes into play: having a shared goal and a drive to accomplish it for the good of the community. When students participate in service learning where they have a clear shared goal, it can lead to enhanced relationships between students who did not collaborate well before the service learning opportunity. Having this shared mission encourages collaboration and a culture of belonging for students (Furco, 1996). The first-time participants explained that everyone on the crew had different abilities and personalities, but since they understood the purpose behind their project and the positive impact it could have on a community, they were able to work through each other's differences and see the different strengths each crew member brought to the project.

Positive student-teacher relationships have been found to lessen student mental health problems and to increase the students' general well-being (Dods, 2009; Krane, 2016, Wang et al., 2013; Zhu, 2022). Important aspects of student-teacher relationships that seem to improve a student's well-being and mental health are that they are authentically caring and individualized. Another important aspect is that the teacher is

attuned to the student's emotional state (Dods, 2009). Each of these aspects of the teacher-student relationship seems to be taught in the VYCC through the crew leader-crew member relationships. Alumni participants reported developing empathetic listening, being aware of others' emotions, and getting to know members of their crew on an individual level. Each of these skills seems to have positively informed their current work with children.

Positive student-teacher relationships have been found to mitigate levels of depression, school dropout rates, and juvenile delinquency (Krane, 2016; Wang et al., 2003). Students who have strong relationships with their teachers are more likely to seek mental health help when they are in need (Halladay et al., 2020). The alumni in the study who now work with children seem to have learned strategies in developing positive relationships with their students, and these types of relationships have been found to have a significant positive effect on student mental health, while they are in school and long after they graduate (Dods, 2009; Krane, 2016, Wang et al., 2013; Zhu, 2022).

Each of the alumni participants discussed skills and strategies they used to create community on their crews and then subsequently used in their classrooms and other places of work, such as empathetic listening, getting to know students on an individual level, and acknowledging student success and growth. An important thing to note in these interviews is that each of the alumni participants described how the VYCC promotes an important mindset in its participants that is aligned with one of their main principles, "creating a culture of belonging."

There also seems to be an opportunity for growth in the VYCC organization in

terms of supporting crew leaders in including and empowering people from different backgrounds and those who have differing abilities. One of the crew leaders in this study asked, “How do we be inclusive for everyone, and how do we be efficient with completing the task at hand?” They expressed that they wished they had been provided with more information on their crew members so that they could best support them and help them to be successful on the crew. Another participant said that the VYCC helped him to “shed his pickiness” in terms of who he spends his time with, opening himself to new perspectives and personalities. The VYCC experience can help members to build invaluable people skills, teaching them how to collaborate effectively with people from various backgrounds and promote a culture of belonging. It may be worth exploring ways to best support crew leaders in accomplishing this goal, making the crew experience even more inclusive and promoting success especially for participants from more diverse backgrounds.

Even though they did not explicitly use the word mindset, they each implied that the lessons they learned had to do with treating every young person they encounter as a valuable, unique person who belongs in their classroom or place of work. They seemed to imply that their VYCC experiences helped them to view people who were different from themselves with curiosity, rather than with judgment.

4. Igniting Passion and Sparking Curiosity

Another common thread throughout the first-time participant interviews and the alumni interviews was how the VYCC program exposed participants to new experiences

and encouraged curiosity and the pursuit of different passions. The alumni participants explained how it was important to promote a sense of discovery in and outside of the classroom and to get to know what makes young people feel passionate and excited. A participant who is a farm-to-school coordinator explained:

“I think working with people more and more, you kind of have an understanding of what it is that is going to really increase the probability of a high schooler to be excited about something or...what is it that really sparks their attention? Or interest? Or why do they feel like they should come to work every day?”

The alumni participants seemed to have learned how to increase intrinsic motivation within their students through their VYCC experience. When a student is intrinsically motivated, forces within them determine their emotions and behaviors, rather than being motivated by external forces (Bowman, 2007). Intrinsic motivation leads to high-quality learning, creativity, and long-lasting student engagement, while extrinsic motivation can lead to more shallow and short-term learning (Ryan & Deci, 2000). High-achieving teachers guide students to learning by inspiring them to discover where their talents and passions intersect (Bowman, 2007). This leads to higher intrinsic motivation and engagement. Another alumni participant explained that the VYCC inspired him to pay attention when his elementary students show their passions and to encourage them to pursue the things that engage their full attention:

“And if I see that someone is really engrossed, and whatever it may be, if they're playing chess or making a drawing, or if they just start talking to me about something from their life, I try to, you know, let that happen and just be very present. Because I think that those connections are invaluable.”

This participant explained that he pays special attention and is especially present

when he sees his students “engrossed” or if they are talking about one of their passions. Student-teacher relationships grow stronger when students feel that their teachers understand their interests and backgrounds, and this leads to increased higher order thinking and engagement in the learning process (Hammond, 2015).

Another common thread among the alumni interviews was finding opportunities for young people to be exposed to outdoor activities that spark a curiosity within them and lead to them asking questions. One alumni participant noted, “At that time, it was just a matter of noticing, noticing things like a sense of discovery. So that definitely shapes my experience with the kids to this day.” Another participant explained how she felt a sense of purpose whenever she introduced a young person to a new plant and got them excited to learn more about the natural world. She explained how exposing students to the natural world sparks not only a curiosity in them, but also a passion for teaching others about the natural world. Teaching young people about the natural world led some of her students to want to become ecologists and to focus on studying the environment.

The first-time participants expressed that being in the VYCC rekindled a sense of curiosity and discovery in them. One participant explained that she now looks at trails differently and is constantly questioning why the builders made certain choices and how the trails could be improved. Another participant explained how his superior encouraged him to ask questions every step of the way so that he could fully understand the process. The VYCC has a culture of encouraging questioning among its members. Promoting this kind of “culture of questioning” within the classroom tends to lead to higher levels of student engagement, intrinsic motivation, and learning (Caram & Davis, 2005; Peterson,

2020).

A farm crew member expressed her joy in seeing the positive changes in the teenagers around her. She explained that she saw “sparks of curiosity” and “engagement,” especially in the teenagers around her, that seems to have bloomed throughout their summer experiences. In the VYCC, it seems that these kinds of curious conversations were encouraged by crew leaders. The crews were not focused on just finishing the task at hand, but understanding the “why” behind the project, as well as the larger societal issues at play.

This kind of questioning around the larger societal issues was a form of critical curiosity, which was promoted in the VYCC. Critical curiosity is a philosophy developed by Paulo Freire that refers to curiosity about issues of powers and inequality, as well as a willingness to question dominant society (Clark, 2017). Critical curiosity can be fostered by relevant material, exposure to new perspectives, and the reception of new, surprising information. Critical curiosity tends to lead to critical consciousness, which is when individuals come to understand and challenge oppressive social forces, being more engaged citizens who focus on social justice issues (Clark, 2017). Alumni participants seemed to have nourished this critical curiosity, and alumni implied that they wanted to pass this on to their own students.

A common theme in all of the alumni interviews was the importance of sparking curiosity and cultivating passions within their students, whatever those passions may be. They especially emphasized the importance of exposing young people to outdoor ecological experiences, but they also explained how being in the VYCC showed them

that everyone has a passion and it is just a matter of bringing that passion out and celebrating it. The first-time participants explained how the culture of curiosity in the VYCC encouraged a sense of discovery and understanding in regards to the natural world and their conservation and farm projects. This culture in the VYCC seemed to have led to perceived positive effects in terms of the mental health of participants in this study, as well as the passion that went into their work.

5. Bringing Community-Based Projects and Critical Service Learning into the Classroom

An important aspect of the VYCC that seemed to have a perceived positive effect on participants' mental health in this study was the community-based nature of the projects. First-time participants reported feeling great joy and satisfaction from helping the local community and understanding the "why" of their arduous work. When a person is educated on the underlying issues behind their service work, they are considered to be participating in critical service learning (Mitchell, 2008). Under these criteria, the work of the VYCC seems to fall under the umbrella of critical service learning, and this aspect of the work seems to have had a perceived positive effect on the mental health of participants in this study. They reported overwhelmingly positive feelings towards helping members of the local community.

Members of the farm crew explained that they felt connected to the land and the food they were producing, as well as the people who benefited from their hard work, at times in the scorching sun. They reported feelings of "pride," "humility," and "gratitude"

towards the community members they served. These emotions seem to have, in turn, led to positive changes in perceived mental health. After receiving an email from a group who benefitted from the Healthcare Share, an assistant crew leader noted, “They were so excited at the smell of the basil that it smelled so good...And they were so thankful. And so that helps us feel good that even the most mundane tasks, there was a point to it.”

Another member of the farm crew explained how the work changed how she saw herself:

“Prior to the summer I felt alienated from the work I was doing because it wasn't really producing anything nor was it achieving anything that I considered to be helpful. And so in this change what's happened is I see myself as our producer, as opposed to someone who kind of just consumes things, and that was a change I wanted to actually facilitate...So I see myself as a producer, I see myself doing some sort of stewardship of some land, here and at the homestead that I'm involved with, which feels good.”

The alumni participants also expressed how the nature of the work stood out to them during their experience, and they even hoped to give their students that same feeling of satisfaction that comes with understanding the “why” behind a project or a learning experience:

“But I think I was really inspired by a sense of responsibility and kind of meaningful work, I just felt really gratified by the projects that we were working on and getting the opportunity to start something with this crew, have a vision and see it through to fruition. So that's probably what stood out most to me.”

This key finding aligns with the research on intrinsic motivation and student engagement, and it adds to the limited research on the positive mental health effects of critical service learning. Students tend to be more intrinsically motivated in school when

there is a clear purpose behind a lesson, and they are encouraged to find personal meaning in the material (Bowman, 2007; Caram & Davis, 2005). Purposeful learning in which students find their own meaning through real-world experiences is at the root of the constructivist theory of learning (Blumenfeld, 2006; Hein, 1991; Krajcik & Ültanır, 2011). These types of educational opportunities have been found to increase engagement and intrinsic motivation (Marchant, 2019). The participants seem to have been engaged in their work and motivated to finish, but there was also a change in their perceptions of themselves and their contributions to the local communities. They reported feeling immense pride and joy in their work, as well as deep connections to both the local community and to the land. One participant even mentioned that she could see herself moving to the city in which she and her crew worked.

An alumni participant noted that it is not only important to make sure that she is providing students with opportunities to produce meaningful work, but also that they are acknowledged for their hard work and that they understand why they are doing it. It echoes the sentiments of the first-time participants in describing the pride and ownership they felt over their projects that benefitted local communities. The alumni participant explained:

“I think also, that is something that I carry for us is trying to be really, again, it's also what I said before about giving ownership, but also the acknowledgement of someone else's work. I think too, that's super important, especially about validating young people—to know that what they're doing is making a difference and that you care. So appreciating and acknowledging I think is just such a big [lesson].”

Recognizing students' actions, effort, and progress, as well as showing them

gratitude for their hard work leads to strong teacher-student relationships and greater motivation (Bowman, 2007). The connection that the participants felt to the communities they served and the purposeful nature of the work seemed to have a perceived positive effect on the mental health of the first-time participants in this study.

The nature of the work was also brought up in the alumni interviews, with participants explaining the satisfaction that came with knowing that their work was meaningful and that it would be helpful to local communities. They explained how it is important to show the young people with whom they work that what they do matters and that they can make a positive impact in their communities, and to provide them with opportunities to complete that kind of work in the form of meaningful projects.

6. Learning as an Experiential, Project-Based Process

A common theme throughout both the first-time participant interviews and the alumni interviews was that it was not just the outcome of the work and educational experiences in the VYCC, but the process of the work that had a perceived positive effect on their mental health. First-time participants explained how the “learning by doing” aspect of the projects in the VYCC led to increased confidence in their abilities and greater motivation to accomplish various projects.

The VYCC experience is unique in the sense that crew members are given a project, taught the important skills needed to complete that project, and then allowed to use their own judgment and problem-solving skills to accomplish the task. They are encouraged to experiment with different tactics and to see mistakes as learning

opportunities. The work in the VYCC mirrors the main aspects of project-based learning.

PBL has been found to be an effective way to boost student engagement, promote authentic learning, and develop leadership and collaborative skills (Blumenfeld, 2006; Erdem, 2012; Hein, 1991; Krajcik & Ültanır, 2011; Miguel & Carney, 2022; Shin, 2018). The nature of the work in the VYCC seems to have made participants in this study feel an elevated sense of self-efficacy in terms of their personal and professional goals, as well as a decrease in perceived anxiety. A participant noted that she felt free from “mental blocks” when she was working on a project at a farm, and another participant noticed that he got so lost in the rhythm of the work and the drive to persevere that he ended up working much longer hours than anticipated.

Project-based learning has been found to increase student self-efficacy in the specific domains in which the projects fall (Chen et al., 2015; Mills et al., 2009; Samsudin et al., 2020; Shin 2018). In a 2015 study on the relationship between collaborative, project-based learning and self-efficacy in engineering, researchers found several factors from the PBL experience that may have influenced the participants’ increased levels of self-efficacy (Chen et al., 2015). Some of these factors seem to have also influenced first-time participants in this study. The first was “domain-specific self-efficacy in an authentic context.” Like the participants in the 2015 study, the participants in this study engaged in real-world projects that directly related to their professional aspirations, including farming, education, wildlife management, and environmental studies. After successfully completing projects that closely related to their future goals,

they felt greater efficacy in those domains, much like the participants in the engineering study (Chen et al., 2015). Increases in self-efficacy in a specific subject have been found to positively affect academic achievement in that area (Jackson, 2002).

Another aspect of PBL that may have led to positive changes in self-efficacy was “learning from multiple perspectives and design scenarios” (Chen et al., 2015). VYCC participants are given the latitude to try out different strategies and learn from their mistakes and successes. This aspect of the program seemed to enhance participants’ perseverance and willingness to engage with their other crew members in the learning process. The interviews with participants suggested that the active, collaborative, trial-by-error approach to the work in the VYCC led to their deeper, more long-lasting learning. One participant explained that her experience caused her to question the decisions of trail builders whenever she was hiking in the woods, and another participant noted the “intrinsic learning value” of projects in the VYCC. She noted that in her school experience, there was a great deal of memorization, which did not lead to deep learning. On the other hand, “learning by doing,” as she put it, led in her mind to deeper, more long-lasting learning because she was active in the learning process and motivated to complete a task to the best of her ability.

The alumni participants expressed how they brought this sort of “learn by doing” process into their work with young people and how empowering it can be for their students. They emphasized the importance of allowing their students to make mistakes and to learn from them, and how they learned that lesson from the VYCC. One participant explained how the main lesson she learned from the VYCC was that learning

was about the process:

“It's not always about the end product, it's more about the process that, you know, it takes to to, to get to that end product...there's a point of that work that it didn't need to be perfect...And so I think that's a big point...so the process is more than the outcome in a lot of ways. And I think that's huge in what I do now.”

The moments that stood out to alumni participants the most seem to be focused on the process of the work, and now in their own work they look for opportunities to have their students participate in project-based, experiential learning.

PBL is grounded in the constructivist theory of learning, but the work in the VYCC seems to fall into a subset of constructivist learning called constructionism. When a learner participates in constructionism, they not only gain new knowledge through inquiry, investigation, and reflection, but they also produce a significant artifact that helps to solve a problem or help their local community (Grant, 2002). Alumni and first-time participants alike reported the pride and joy that came with achieving a tangible project that helped the local community.

PBL has been found to be an effective learning strategy that promotes “deeper learning” in the classroom. In a review of educational theory and research, a National Research Council Panel defined “deeper learning” as “the process through which an individual becomes capable of taking what was learned in one situation and applying it to new situations” (Huberman et al., 2014). The nature of PBL especially promotes the transfer of knowledge from the particular learning task to real-world applications. This real-world application aspect of PBL falls under the cognitive domain of competencies, engaging participants in complex problem-solving that could apply across disciplines

(Humerman et al., 2014).

The project-based learning present in the VYCC experience seems to have had an influence on participants' perceived self-efficacy in terms of their personal and professional goals. PBL has been found to have positive effects on students' intrinsic motivation, self-efficacy in specific domains, and deep learning. This study resonates with the prominent research on the effects of PBL (Blumenfeld, 2006; Erdem, 2012; Hein, 1991; Krajcik & Ültanır, 2011; Miguel & Carney, 2022; Shin, 2018).

7. Promoting Different Definitions of Success and a Strengths-Based Perspective

A strengths-based perspective is defined as assuming that every person has strengths and attributes that can lead them to success in many different areas in life (Lopez & Louis, 2009). When teachers have a strengths-based perspective and act on it in the classroom, it improves student achievement and well-being outcomes (Galloway et al., 2020). Both the alumni participants and the first-time participants in the VYCC expressed that an important part of the VYCC experience was working with others with varying strengths and perspectives. Although the alumni participants did not use the exact phrase "strengths-based perspective," their answers to the interview questions indicated that the VYCC played a part in them developing this kind of outlook in their current work with young people.

The alumni participants explained how working on a crew with young people with learning differences and different backgrounds helped them to see that every person has strengths that they could leverage to accomplish their goals. They tried to model that

philosophy with their current students or young people with whom they work. One alumni participant explained how working with a crew member on the Autism spectrum made her realize that he had heightened abilities in other areas. In a study of high academic achievers with Autism Spectrum Disorder who attend prestigious colleges and universities, it was found that strengths-based teaching and support strategies in their secondary schools was one of the main factors in their immense academic success (Gelbar & Reis, 2022).

Another participant explained that she had never seen herself as a person able to do hard, physical labor, but after the VYCC she realized that she had particular strengths to help accomplish major goals. When young people become aware of their strengths, they tend to make out a conscious effort to utilize them in different areas. A young person's awareness of their strengths and the subsequent application of those strengths leads to increased positive self-concept and heightened self-efficacy (Jones-Smith, 2011).

Closely related to having a strengths-based perspective, alumni participants explained how the VYCC helped them to change their definitions of "success." Multiple alumni participants explained that the VYCC experience helped them to see that not everyone fits into the typical path to success that has become commonplace in American culture and that some students need alternative programming or a different type of schooling to achieve success.

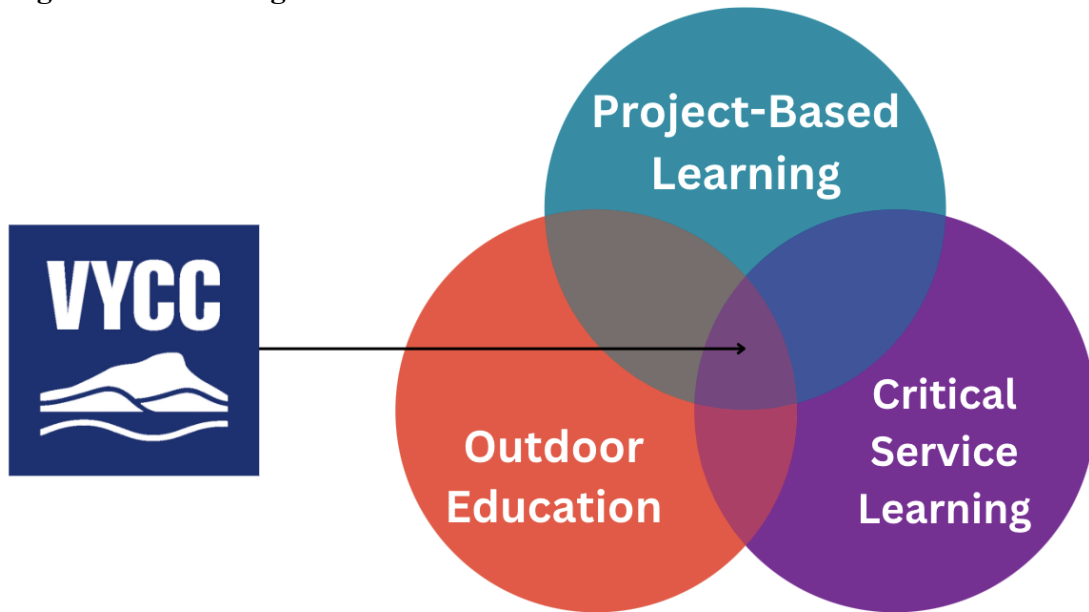
Overall, the alumni were in agreement that the VYCC helped them to broaden their definitions of "success." They hoped to pass on that same message to their students

and to show them that their passions and strengths may lead them to alternative paths to success. Some of the most successful teachers act as guides to their students, helping them to uncover their passions and to help them discover their individualized definitions of what it means to be “successful” (Bowman, 2007).

Implications for Policy and Practice

The findings of this research study, along with previous research on project-based learning, service learning, and outdoor education, suggest some implications for educational policy and practice that could benefit youth mental health and promote deeper learning in classrooms. There seem to be aspects of the VYCC that were already being successfully brought into the classroom or other youth organizations that led to perceived positive changes in mental health of participants in this study. Examining the interviews from first-time participants alongside interviews from alumni who now work with or recently worked with children provided a unique perspective into the possible educational implications of this program. The implications for policy and practice are grounded in the previous research surrounding service learning, project-based learning, and outdoor education.

Figure 4: Venn Diagram



Following are implications for school policy and practice gleaned from this study and previous research on these three pedagogical areas:

1. Critical service learning can connect young people to their local communities and lead to feelings of pride and accomplishment from understanding and helping to combat real-world issues.
2. Bringing project-based learning into the curriculum could increase intrinsic motivation and perceived self-efficacy.
3. Outdoor education could positively affect students' mental health, and there is a need to expand access to those historically marginalized from outdoor educational experiences.

Table 5: Implications for Policy and Practice

- 1. Critical service learning can connect young people to their local communities and lead to feelings of pride and accomplishment from understanding and helping to combat real-world issues.**

Service-learning projects can be an effective way for students to help those in their community and to see themselves as valued members of their communities. Participating in service projects can help them to extend their ideas of who belongs in their communities and to feel connected with people they had previously seen as “other” (Flanagan, 2015). Service learning is an experiential process that can lead students to collaborate with people different from themselves, take on leadership roles, and feel a sense of ownership and pride in their service projects (Furco, 1996). It has also been found to have positive effects on academic performance, well-being, self-efficacy, and leadership (Astin et al., 2000; Flanagan, 2015). Service learning has been found to be the most effective in engaging students in the learning process when students both believe in the cause for which the service is being provided and when they take on important responsibilities in the process (Furco, 1996).

However, if students do not understand the underlying root causes of the issue that leads to the need for them providing service, it runs the risk of being a more surface-level endeavor. Having a deep understanding of the root causes of the issues students are attempting to combat provides students with a deeper learning experience and may even spark a passion for years to come.

While those in the VYCC are being paid a stipend, they are actively working to solve problems in communities throughout Vermont. Why this researcher would categorize this work as “critical service learning,” is that members of the VYCC understand the “why” behind their work. Those who participate in critical service learning are working towards developing a “critical consciousness.” They are building an

awareness of oppressive systemic forces in society that led to the need for service in the first place. Critical consciousness also involves an understanding of the agency one has in combating those systemic forces and how one can work individually or collectively to make positive change (Heberle et al., 2020). When asked about the Health Care Share initiative, members of the farm crew were able to provide detailed accounts of how this initiative works, why it is important, and the root causes behind the need for such a program. They were filled with passion when describing the program, explaining that, although this work would not solve the food insecurity crisis in Vermont, it was a step in the right direction. They had a deep understanding of why they were weeding and planting in the hot sun all day.

Participants on the conservation crew described a similar understanding of the reasons behind their work and the impact their projects had on the community. Both conservation corps participants described their painstaking work of digging 44 ditches for a mountain biking trail with pride. The name of the trail they built “Maximum Capacity” was fitting because they felt like they put their maximum efforts into this project. They both understood how each trail feature they built and each ditch they dug helped to enhance the trail. They also understood how big an impact this would have on the local community. This understanding led to feelings of pride, joy, and accomplishment.

Not only did participants understand the “why” behind their work, but they were also able to connect with members of the local community who benefited from their work. Those who had that opportunity explained the perceived positive effect this had on their mental health. One participant on the farm got to deliver the fresh vegetables from

the Health Care Share to veterans, and she described being filled with humility and pride. Another farm crew member explained the joy that came from reading an email from health care workers who savored the smell of fresh basil from the most recent delivery.

A member of the conservation crew even had the opportunity of attending the grand opening of the Maximum Capacity trail that she and her crew created. She described feeling joy and a deep sense of teamwork with other members of the community.

It is especially important in the wake of the Covid-19 pandemic for young people to feel connected to their local communities after years of being isolated from them. Critical service learning could provide an opportunity for young people to connect with their communities, feel pride and accomplishment, develop a critical consciousness of the systemic root causes of the issues, and boost their senses of purpose. Those who study liberation psychology find that wellness is achieved through the satisfaction of personal, relational, and collective needs. These three categories of needs cannot be met without examining the power structures in place that may hinder or satisfy these needs (Prilleltensky, 2008). Watts and Flanagan contend that, for too long, positive youth development has focused only on individual need, at the expense of its attention to collective experiences and the structural barriers to youth participation in a community (Watts & Flanagan, 2007). There is an opportunity to enhance youth wellness in terms of meeting their individual, relational, and collective needs through implementing critical service learning in the school building.

It would be a positive step for young people if critical service learning were

embedded in a school's policy and culture. Teachers could help students to pick an issue that affects their local community, research it, and complete service work to help combat the issue. Students could then present their research and service project to their classmates, and even to community members at an event. Participating in critical service learning could help students to develop a critical consciousness, see themselves as valuable members of their community, and boost their senses of efficacy and well-being (Heberle et al., 2020; Prilleltensky, 2008; Watts & Flanagan, 2007).

2. Bringing project-based learning into the curriculum could increase intrinsic motivation and perceived self-efficacy.

During the 20th century, most schools in developed nations subscribed to the instructionist theory of learning, which involved the “sage on the stage approach” of the teacher transmitting facts and knowledge to the students that they would need to participate in the industrialized economy of the early 20th century (Sawyer, 2006). In the modern world, this theory has shortcomings in terms of setting children up for success; learning facts is not enough anymore to compete in what is called the “knowledge economy,” where people are expected to collaborate, communicate effectively, work towards creative solutions, and apply their knowledge to different disciplines and scenarios (Darling-Hammond & Oakes; Sawyer, 2006). One of the pedagogies being used in schools to help students prepare for their future professions in this “knowledge economy,” is project-based learning. PBL helps students to make connections between different disciplines in school and real-world situations. It aligns with the complex

problem solving, transferability of knowledge across disciplines, and critical thinking skills associated with deep learning (Huberman et al., 2014).

The nature of the work in the VYCC seems to have led to an increase in perceived self-efficacy and motivation among participants, and there are aspects of the work that can be brought into the classroom, especially in terms of project-based learning. First-time participants expressed that their work in the VYCC led to an increased belief in their abilities to achieve their personal and professional goals, which resonates with studies on the positive correlation between PBL and students' self-efficacy in a particular domain (Chen et al., 2015; Mills et al., 2009; Samsudin et al., 2020; Shin 2018).

The common features of PBL include a leading, problem-based question for the project, a process that leads to the creation of one or more tangible projects that would address the problem, the effective use of resources, a system that allows learners to monitor their progress, collaboration between classmates, and opportunities for reflection (Grant, 2002). An important aspect of PBL that must not be overlooked, especially for the purpose of this experiment, is that both the driving question and the learner-created project have an authentic connection to the community (Miller & Krajcik, 2019).

Working on a project for the VYCC involves each of these steps and procedures, making it a program in which participants engage in project-based learning. Both the first-time participants and the alumni participants explained how the project-based aspect of the VYCC led them to increased feelings of confidence in themselves and their abilities to accomplish their personal and professional goals. This resonates with educational research on the positive relationship between project-based learning and

students' levels of self-efficacy around the lesson taught through PBL (Chen et al., 2015; Mills et al., 2009; Samsudin et al., 2020; Shin 2018). Alumni participants expressed how they brought this “learning by doing” mindset into their work with young people, and learning theorists found that using PBL in the classroom has been found to increase students' deeper learning (Huberman et al., 2014).

In terms of educational policy and practice, it is important for teachers to receive training on how to guide students in project-based learning. This is a strategy in education that is found to be highly effective for student learning and achievement, but it is a major change in terms of traditional schooling, so teachers need the proper training to do it successfully (Capraro & Scott, 2013; Grant, 2002; Miller & Krajcik, 2019). There are alternative schools that especially embrace project-based learning, but it is time for it to become more of a mainstream teaching method. It helps students to personally connect to their learning and to produce a tangible result that could help to combat a problem facing their community. Although the first-time participants in the study were older than students in the K–12 setting, the interviews from the alumni who work with younger children seemed to indicate that PBL can be a powerful tool for older and younger students alike.

3. Outdoor education could positively affect students' mental health, and there is a need to expand access to those historically marginalized from outdoor educational experiences.

Although outdoor education is not as feasible a possibility for students in schools

with fewer outdoor spaces, this research study does indicate that learning and working outdoors can help young people's mental health and spark a curiosity for the natural world. This points to the need for more accessible green spaces for young people to learn outdoors and to connect with nature.

This policy would probably be more outside of the realm of school policy and more applicable in municipal, state, and even national policy. One participant in this study was able to go off of her antidepressants for the first time in six years. Another participant explained how living and working outdoors gave her the mental strength to accomplish difficult tasks and deal with the stresses of leading a crew. She even said that if this program were not outdoors, she is not sure she would have made it through. Several of the alumni participants explained the unique and impactful experience of being immersed in outdoor work and how they hoped to bring that same experience to her students.

For schools that have access to outdoor spaces, it is important for teachers to be trained in the principles of outdoor education, as well as safety precautions involved with outdoor learning. It is not just about being outside; it is about developing programs that allow students to explore and connect with the natural world, seeing themselves as a part of it. This luxury, however, is not currently available to all students.

The lack of accessibility, particularly for youth of color living in urban districts, makes outdoor education more prevalent for nonurban white populations (Mackenzie et al., 2017). This lack of access is a great injustice because this study and others have found the positive effects of young people being able to learn and play in the outdoors

(Caldas et al., 2016; James & Williams, 2017; Mackenzie et al., 2017; Smith & Walsh, 2019).

Oftentimes the reason behind this lack of access to outdoor spaces is the lack of affordable transportation to these spaces. There is an opportunity for lawmakers to develop programs that could give students the chance to experience outdoor education through laws meant to transport kids to green spaces and train teachers in maximizing outdoor educational opportunities. This is an inequality present in our education system that needs to be addressed in order for all students to have access to educational opportunities that could improve their mental health and academic engagement.

Limitations of the Study

The main limitation of this study was the small sample size of participants, with five alumni participants and five first-time participants. This smaller sample size allowed for a more in-depth review of participants' responses, making it more effective in this particular study, but a more far-reaching quantitative study would be needed to provide definitive evidence on the significant mental health effects of participating in a Youth Corps program. The other limitation of the study was the lack of diversity in terms of the alumni participants. Each of them identified as Caucasian except for one who chose not to share demographics. This may have given a limited perspective, which could have affected the data.

There was also the risk of participants having social desirability bias. Even though this researcher does not work for the VYCC, she did participate in the program, and so

the participants may have felt pressured to provide positive answers to the research questions. This researcher tried to lessen that bias by reminding the participants that she was a middle school teacher and a graduate student at Boston University who did not work for the VYCC in any capacity.

Another limitation of the study was that two of the participants were on the same conservation crew. This may have given a more skewed perspective, and it probably would have been more conducive to wider perspectives if participants from different crews were interviewed. This study only involved examining one Youth Corps organization. It may have led to further implications for policy and practice if this study had also looked at other Youth Corps organizations across the United States.

A limitation that is also worth mentioning is that first-time participants were in different positions in the VYCC, including two conservation crew leaders, one assistant farm crew leader, one food and nourishment project lead, and one farm crew member. Being in these different positions made for different responsibilities and perspectives, which could have led to different results of people of varying positions. For example, those in leadership positions seemed to feel more stressed in terms of the added responsibilities and leadership pressures, while the participant who was a farm crew member did not seem to feel these same stresses. It was interesting to have different perspectives according to position, but this could have also affected the results.

Implications for Future Research

There are implications for future studies stemming from this research project.

First, it would be interesting and helpful if someone were to complete a more wide-reaching quantitative study focused on the perceived mental health effects of the Youth Corps experience across the country. This study could focus on participants in the Corps network organizations' perceived depression, anxiety, and self-efficacy before and after their summer experiences. Hopefully this kind of study would lead to definitive research on the mental health effects of participating in a Youth Corps organization.

Another idea for a future study directly applies to outdoor project-based learning in schools, and was inspired by an idea brought up by one of the first-time participants. A researcher could study a group of students who complete a project that mirrors the nature of the work in the VYCC. The teacher would be trained in project-based learning and what a VYCC project entails. They would then guide their students through completing a project that addresses a problem in the local community and involves outdoor work. The researcher would interview the teacher and student participants throughout the learning experience on their emotions and perceived mental health, hopefully addressing the question of how bringing a VYCC-like project into the curriculum could affect student perceived mental health. This research could add more to the finding of this research project that outdoor, project-based learning improved participants' perceived self-efficacy and decreased their perceived anxiety.

A third research study that stems from the limitation of interviewing first-time participants of varying positions in the VYCC could be to complete a research study that examines the experience of crew members in the VYCC versus the experience of crew leaders in the VYCC. In their interviews, participants noted that they were curious what

the differences would be in the interviews with crew members versus the interviews with crew leaders. From this research study, it is apparent that these experiences vary in terms of the responsibility and emotional toll of the experience, and it would be interesting to study the differences in these positions and how these differences could lead to different changes in perceived mental health. This type of study may shine light on the need for more support for those in leadership positions in Youth Corps organizations, especially in terms of mental health support.

Conclusions

The Vermont Youth Conservation Corps seems to have had an overall positive effect on participants' perceived self-efficacy, and increased feelings of joy, pride, and accomplishment. It had a perceived mixed effect on participants' depression and anxiety, and seemed to increase some feelings of frustration, stress and burn-out among participants. Following are the conclusions from the first part of the study that involved interviewing first-time participants in the VYCC throughout their summer experiences:

- The nature of the work in the VYCC, in terms of its impact on local communities and tangible results, led to increased feelings of joy, pride, satisfaction, and accomplishment among participants in the study.
- Negative feedback, breakdowns in communication, and pressure to lead those with varying needs and accomplish projects led to feelings of frustration, stress, burnout, and increased anxiety among participants in the study.
- Participants in the study tended to examine their own strengths, personalities, and

self-image as a result of the reflective nature of the program.

- Most first-time VYCC participants in the study reported an increase in confidence in their abilities and self-efficacy, particularly because of the project-based and challenging nature of the work.
- Decreases in perceived anxiety seem to stem from the project-based, outdoor nature of the work and supportive relationships with crew members.
- The outdoor, project-based aspects of the work in the VYCC led to feelings of peace and a decrease in perceived anxiety and depression.
- Working with people of varying abilities led to both increased stress and feelings of connectedness and empathy.
- Accomplishing projects that directly impacted the local community and understanding the purpose behind their work led to improvements to perceived mental health.

The second part of the conclusions had more to do with the interviews with alumni of the VYCC who now work regularly with young people. These are ways that lessons or parts of the VYCC experience could feasibly be brought into the classroom setting.

- It is beneficial to students to understand the process of learning and that mistakes are just as important as successes in the learning process.
- Teachers should commit themselves to having an open mind and viewing learning differences as potential strengths.

- Teachers should view their students as holistic beings and get to know them on a personal level in order to make connections and build community in their classrooms.
- Not every style of communication works well with every student; it is important to try different communication styles with students who learn differently.
- It is important for teachers to instill in their students a sense of joy at discovery and praise curiosity, encouraging students to celebrate when they learn something new or see something in a different way.
- Teachers and mentors should guide students in discovering their passions and exploring unique pathways to fulfilling those passions, starting at a young age.

The main purpose of this research project was to examine the effect of the VYCC experience on participants' perceived mental health and to uncover possible implications for the post-pandemic classroom. The findings in this study are consistent with the prominent research on experiential, outdoor education in terms of its positive effects on self-efficacy, anxiety, intrinsic motivation, and engagement (Davies et al., 2020; Mutz & Müller, 2016; Sayegh et al., 2019). It also adds to research on the positive mental health effects of Project-Based Learning and critical service learning. For the past 90 years, the Corps network has been employing and educating young people, from the CCC to the YCC to the state-run Corps network organizations today. This research project adds to the limited body of research on the perceived mental effects of participating in a Corps network organization and how this model could inform strategies used in the classroom today.

APPENDIX

Appendix A: Letter with Research Site Approval



The Vermont Youth Conservation Corps gives Caroline Corsones permission to conduct research both at VYCC and with VYCC as part of her dissertation. Any additional questions or considerations should be made to:

Daniel Schmidt
Chief Program Officer
Daniel.schmidt@vycc.org
802-922-3560

Appendix B: Recruitment Poster for Alumni Participants

**THE YOUTH CONSERVATION CORPS
EXPERIENCE: STRATEGIES FOR THE
POST-PANDEMIC CLASSROOM**

A research study through Boston University

Have you participated in the Vermont Youth Conservation Corps?

Do you work with children on a regular basis?

Do you want to contribute to a growing body of research on the effects of outdoor educational experiences?

Seeking volunteers who are willing to be interviewed virtually for no more than 60 minutes about their VYCC experience and how it relates to their current work with children.

**If interested in participating,
please contact:**

**Caroline (Corsones) Rooney
Graduate Student at Boston University
ccorstone@bu.edu
802-282-8880**



Appendix C: Summary of Research Study Read to Potential First-Time Participants

My name is Caroline Rooney, and I am a doctoral candidate at Boston University and a full-time middle school public school teacher. I am also a proud alumna of the Vermont Youth Conservation Corps, being a crew member during the summer of 2013 and a crew leader during the summer of 2015.

For my dissertation, I am completing a study that may uncover the ways that a youth organization is positively affecting participants' perceived mental health, and whether or not the strategies they use could feasibly be brought into the classroom. I chose this topic for my study because there have been few studies on the Youth Conservation Corps experience, especially focused on strategies that could be brought into the classroom. I believe this untapped material could be helpful for teachers and staff at schools, working with children who are living through a pandemic. I am hoping to study the perceived mental health effects of participating in the Vermont Youth Conservation Corps (VYCC), and whether or not the strategies from this organization can be brought into the post-pandemic classroom.

I am seeking participants for this study who are 18 years or older, and are participating in the Vermont Youth Conservation Corps for the first time. Participating in my study would involve being interviewed three times throughout your VYCC experience. The first interview would be about 30 minutes at the start of your experience, the second would be around an hour halfway through your experience, and the last would be an hour near the end of your experience. I would meet you at Headquarters for the first interview, and would travel to your field site for the other two interviews. I feel passionate about this research, as both an alumna of the VYCC and as a teacher, and I would very much appreciate your participation.

If interested, you can...

Appendix D: Interview Questions for First-Time Participants

Start of Experience:

1. What drew you to want to participate in the VYCC?
2. How do you think you will handle living and working outdoors?
3. What sorts of skills and attributes do you think you will bring to your crew?

Follow-up: Think about the things that you've heard your family members and friends say about your strengths. If I asked them the same question, what would they say?

4. What do you think it will be like working outdoors?

Follow up: If they answer positively, ask if they will anticipate any challenges? If they do, ask how they think they will manage those challenges.

5. Is there anything else you would like to share with me?

Middle of Experience:

1. What have you been working on so far this summer?

Follow-up: If they just list the names, ask for more details.

2. Were there any moments that have stood out to you so far this summer?

If they stumble with this question, ask if there were any specific events.

3. How would you describe your relationship with your crew members?

Follow-up: What aspects of the programming shaped your relationships with crew members?

4. What emotions stand out to you the most so far?

Follow-up: If they just talk about the present, ask how this is different from the emotions they were feeling at the start of the summer. Have these emotions changed over time, since they began the program?

Follow-up: (if they mention feeling anxious or nervous): Have you felt more or less anxious than usual so far during the summer?

5. What obstacles have you faced so far, and how have you handled them?
6. Have you noticed anything different so far this summer in terms of how you see yourself and your own abilities?
7. Is there anything else you would like to share with me?

End of Experience:

Perhaps start the interview with reminding the participant of their answers at the start of the summer.

1. What have you been working on this second half of the summer?
2. What were your biggest accomplishments during your summer with the VYCC?
3. What were your biggest challenges during your summer in the VYCC, and did you overcome them?
5. How would you describe your relationship with your crew members? Follow-up--What aspects of the programming influenced this relationship?
6. What is it like for you to make connections with people who are different from you?

Follow-up: Generally, how confident do you feel in doing this?

Follow-up: Do you think your experience here with your crew members has had any effect on that?

7. Now that you are coming to the end of the program, what emotions stand out to you the most?

Follow-up: If they just talk about the present, ask how this is different from the emotions they were feeling at the start of the summer. Have these emotions changed over time, since they began the program?

Follow-up: (if they mention feeling anxious or nervous): Have you felt more or less anxious than usual so far during the summer?

8. Do you think your image of yourself and your abilities has changed from the start of the summer?
9. How did you feel about yourself and your own abilities to accomplish your goals while in the VYCC?

10. Did you learn anything new about yourself while in the VYCC?

11. Is there anything else that you would want to share about your experience this summer?

Appendix E: Interview Questions for Alumni Participants

1. Give a brief description of your current job responsibilities and your interactions with children or young people.
2. Describe the parts of your VYCC experience that stand out to you the most.
3. Are there any lessons you feel like you learned from your VYCC experience?
4. Is there anything about your experience with the VYCC that has influenced the strategies you use with young people in your current job?

Follow-up: Is there anything about your experience with the VYCC that has influenced how you communicate with young people in your current job?

Follow-up: Is there anything about your experience with the VYCC that has influenced how you connect with children in your current job?

5. Is there anything else you would like to share about how your experience with the VYCC has affected your current work with young people?

Appendix F: Consent Form for First-Time Participants

Consent Form

Please read this form carefully. The purpose of this form is to provide you with important information about taking part in a research study. If you have any questions about the research or any portion of this form, please ask me.

*The person in charge of this study is **Caroline (Corsones) Rooney, a Doctoral Student at Boston University**. Participation in this research is voluntary, which means that it is something for which you volunteer. It is your choice to participate in the study, or not to participate. If you choose to participate now, you may change your mind and stop participating later.*

The purpose of this study is to investigate the possible perceived mental health effects of participating in a Youth Conservation Corps and the feasibility of bringing its strategies into the classroom setting. We are asking you to take part in this study because you are participating in the Vermont Youth Conservation Corps for the first time. If you decide to take part in the study, you will be asked to participate in three interviews, the first one being around 30 minutes at the beginning of your summer experience, and the next two being no more than one hour each, at the middle and end of your experience.

The main risk of allowing us to use and store your information for research is a potential loss of confidentiality. I plan on using a digital recording device to document the interviews, and then transcribing the interviews on my computer. I will transfer the interview from the digital recording device to my external hard-drive and BU dropbox, to ensure the safekeeping of the interview archives and to assure confidentiality. Only I and certain BU offices in charge of monitoring human subjects research for safety and quality assessment purposes will have access to identifiable information. These offices include BU Central Offices and the BU Institutional Review Board (BU IRB). If you have any questions or concerns about your rights as a research participant, please contact the BU IRB at irb@bu.edu.

Although you will not benefit directly by participating in this study, the results of this study may contribute to the growing field of research on outdoor education and youth mental health.

You will not incur any costs in order to participate. You will not receive any payment in exchange for your participation.

If you have any questions about the study, please contact me or my faculty advisor at the contact information listed below:

Caroline (Corsones) Rooney
ccorson@bu.edu

Monday–Friday, 3:00–5:00

Faculty Advisor:
Dr. Pipier Smith-Mumford
smumford@bu.edu

If you have questions about your rights as a research participant, or if you have any complaints or concerns and want to speak with someone independent of the research team, you may contact the Boston University Charles River Campus IRB at 617-358-6115 or at irb@bu.edu. The [IRB Office webpage](#) has information where you can learn more about being a participant in research, and you can also complete a Participant Feedback Survey.

Statement of Consent

I have read the information in this consent form including risks and possible benefits. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study.

Appendix G: Consent Form for Alumni Participants

Consent Form

Please read this form carefully. The purpose of this form is to provide you with important information about taking part in a research study. If you have any questions about the research or any portion of this form, please ask me.

*The person in charge of this study is **Caroline (Corsones) Rooney, a Doctoral Student at Boston University**. Participation in this research is voluntary, which means that it is something for which you volunteer. It is your choice to participate in the study, or not to participate. If you choose to participate now, you may change your mind and stop participating later.*

The purpose of this study is to investigate the possible mental health effects of participating in a Youth Conservation Corps and the feasibility of bringing some its strategies into the classroom setting. We are asking you to take part in this study because you participated in the Vermont Youth Conservation Corps and you work regularly with children. If you decide to take part in the study, you will be asked to participate in a one-hour Zoom interview about your experience in the Vermont Youth Conservation Corps.

The main risk of allowing us to use and store your information for research is a potential loss of confidentiality. I plan on using a digital recording device to document the interviews, and then transcribe the interviews on my computer. I will transfer the interview from the digital recording device to my external hard-drive and the BU Dropbox, to ensure the safekeeping of the interview archives and to assure confidentiality. Only I and certain BU offices in charge of monitoring human subjects research for safety and quality assessment purposes will have access to identifiable information. These offices include BU Central Offices and the BU Institutional Review Board (BU IRB).

Although you will not benefit directly by participating in this study, the results of this study may contribute to the growing field of research on outdoor education and youth mental health.

You will not incur any costs in order to participate. You will not receive any payment in exchange for your participation.

If you have any questions about the study, please contact me or my faculty advisor at the contact information listed below:

Caroline (Corsones) Rooney ccorson@bu.edu

Monday–Friday, 3:00–5:00

Faculty Advisor:

Dr. Pipier Smith-Mumford smumford@bu.edu

If you have questions about your rights as a research participant, or if you have any complaints or concerns and want to speak with someone independent of the research team, you may contact the Boston University Charles River Campus IRB at 617-358-6115 or at irb@bu.edu. The [IRB Office webpage](#) has information where you can learn more about being a participant in research, and you can also complete a Participant Feedback Survey.

Statement of Consent

I have read the information in this consent form including risks and possible benefits. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study.

Appendix H: Pictures from VYCC Farm Stand and Headquarters in Richmond, VT





Appendix I: Pictures from the Journey to Island Work Site





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