Shop Class as Collaborative Community Engagement

by

Kirsten N. Tancon

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Abstract

Established studies emphasize the importance of Project-Based Learning and Service Learning for enriched student experiences (Meyer & Wurdinger, 2016; Witmer & Anderson, 1994; gomez-lanier, 2016). Several authors have further combined these concepts into “Project-Based Service Learning”, which “interweaves learning objectives and service objectives to create mutually beneficial environments where community service recipients benefit and the students obtain a rich learning experience” (gomez-lanier, 2016, n. p.). Desired skills, such as problem-solving, design thinking, working and collaborating with others, and community engagement, are clearly outlined in our new BC curriculum (Province of British Columbia, 2017); however, there is little to no academic connection between Technology Education and the concept of Project-Based Service Learning. The purpose of this thesis is to explore precedents of community service-learning in Technology Education programs in BC, synthesize what has given such projects success, and work to create such projects or programs here in the Comox Valley.

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Chapter One: Introduction

Introduction

As a ‘shop’ teacher in BC, I observe first-hand the confidence and gratification students gain from building something with their own hands. When asked how I can make my shop more relevant in the face of lower funding, shop closures across the province, and ever-changing technologies, current trends in the field suggest that I should be turning my woodwork and metalwork shops into Robotics or Maker Space arenas. Although these subjects are valuable and attractive to many students, I believe that they are not a “magic bullet” answer to the question of shop relevance. Cost and accessibility to these programs and machines can be prohibitive for some teachers and districts, many students are intimidated by computer and math-based learning, and I feel that there is still a place for more “traditional” and diverse crafts such as woodworking and metalwork in our schools.

My interest lies in how we can look beyond the shop subject itself, and more toward the instrumentality of the subject as an avenue toward more holistic learning for students in a modern context. With this consideration, I want to know if a collaborative and community-service program—where students engage and connect with organizations and initiatives outside of the school—might be a viable solution to preserving and reinventing shop curriculum. I believe that greater reliance on the skills and creative potential of our shops, as well as solidifying the shop as a necessary and symbiotic part of a greater school and local community, would be an effective means of keeping it relevant. Therefore, my action research question is: “How can shop class serve as a focal point for community service-learning, and what
precedents of Technology Education-centred community service projects or programs exist in British Columbia?"

**Justification of research**

The intention of my research is to expand beyond building confidence in students when they complete a project or practise skills in my courses. I already witness an incredible sense of accomplishment in many students—for example, if a student is not successful at academic subjects, it is powerful to see them build confidence in hands-on learning, or to see them find a calling in a trades career. However, I would like to incorporate what I perceive to be other indicators of “success” into the shop as well.

Through community-serving projects, I hope to use the shop as a vessel to develop student Social Emotional Learning by encouraging students to care about the needs of other folks, especially those less fortunate in our community. Moreover, I hope to encourage student contribution to their community, especially through working with demographics outside of their peer group, such as elders or younger children. Finally, if students experience more anxiety than ever as we tend to become more isolated from one another, can the injection of interconnectedness and building projects for other people help to remedy this?

This research is further justified simply by the fact that there is scant academic literature involving Technology Education and community connection. My goal through this research is to have a guidebook that can be utilized by other ‘shop’ teachers wishing to incorporate community outreach into their curriculum.
Background and personal experience

Personal experiences as a student. My own experience in high school, until my later years, found me as a fairly blissful “empty vessel” type of student, who did not really question much of the status quo, regurgitated information that was taught to me in a way that earned me good grades, and did not really personally connect to material I was learning. Not until I started connecting to peers and teachers who encouraged me to think critically, and started looking outside of my school walls—whether at community youth conferences or punk shows, did I really began to engage with what I was learning in and outside of school. This transformation was life-changing and absolutely shaped the person I am today.

As a teacher, I hold no illusions as to what my impact alone can have on enriching or enhancing a student’s life, but it is that symbiotic relationship between teachers, parents, peers, and—more importantly (at least in my case)—other community forces that truly impact classroom context. If I felt this power when pulled out of my peer group and the narrow lens placed upon us as youth in a traditional school setting, does this mean other students will feel this power as well?

Hands-on learning and community engagement. I have been passionate about community engagement through hands-on learning for many years. My first introduction to teaching practical skills was through the Sainte-Emilie Skill-Share—a grassroots, non-profit, and volunteer-based community organization in Montreal that offered free and accessible art supplies, equipment use, and art and design workshops to marginalized and low-income communities. We facilitated and worked with such organizations as the Native Friendship Centre and several “at-risk” youth groups.
Upon moving back to Vancouver in 2009, I taught bicycle mechanics and road safety to youth and adults through the Pedal Energy Development Alternatives Earn-A-Bike (P.E.D.A.L.) program. Participants in this program were given a donated bike and were taught the theories and mechanics of how to fix each section. Upon completion of the build, we would go on bicycle rides to various Vancouver destinations as a means of promoting bicycle culture, sustainability, and personal independence. It was incredibly rewarding to see students engage in their community on a vehicle that they had built themselves. These experiences encouraged me to become an educator in the public school system; I valued the freedom and flexibility in the Technology Education curriculum and was drawn to play the part of a facilitator, more than an all-powerful source of authority.

**Aspirations as a teacher-in-training, and current realities.** As a teacher-in-training at the University of British Columbia, I hoped I could pursue student connection and belonging through hands-on and community-centered projects; however, the time constraints and pressures of being a new teacher has made this task impossible. With the exception of my Introduction to Trades course where Grade 9 and 10 students build sawhorses for elementary “Maker Space” classes, my students have largely followed the traditional model of building individual projects for themselves.

Although the sawhorse project is a teacher-driven, pre-defined and planned project, we discuss as a group how the needs of our “clients” affect the building of these projects. For example, because these projects are for children, we talk about the importance of sizing, as well as sanding everything thoroughly so that young children do not get splinters. I have also encouraged several Grade 10 veterans of this course to look into a new project this year to
switch things up. Again, this incentive was largely driven and researched by myself, and we ended up deciding on children’s picnic tables for local daycares. Despite this current model being very teacher-driven, I already observe positive responses and outcomes on the part of these students. One student suggested that we donate a table to his old daycare, and I could witness the pride he had at this prospect.

In drawing from these personal experiences, I hope to create programming that will help to make shop classes more relevant and indispensable in two ways: first, in student collaboration with each other and with community stakeholders, and second, perhaps collaborating with teachers of other subject areas with the intention of making these projects as holistic and enriching as possible. I am inspired by multi-disciplinary and cross-curricular programs that use hands-on learning as their focal points. By researching traditional perceptions of Technology Education within the secondary school system and looking into existent programs elsewhere, I seek to explore what makes such programs successful and how such a shop-based program could translate to the Comox Valley district.

Brief overview of study

In Chapter Two, I will discuss existent literature on the benefits of project-based service learning—that is, learning through building a project for another person or group of people—as well as examples of charter and alternative programs that utilize shop as a focal point for such programs. In Chapter Three, I will outline my research methods and rationale for the project. In Chapter Four, I will explore precedent programs within BC through interviews with shop teachers who have run community-engagement projects or courses, and will compile these findings into a “guidebook” that can be shared with both shop and non-shop teachers who
might wish to add a community element to their curriculum. Finally, in Chapter Five, I will conclude with a discussion on areas that might require further research, and a plan for where my own research could go—both in and outside the Comox Valley School District.
Chapter Two: Literature Review

Introduction

Now that I have established the importance of community engagement in my own learning journey, is it self-indulgent to assume that it works for students in general? As I settled into my interest area, I observed that there were countless articles on the benefits of Project-Based Learning for students of all ages. Delving deeper, I observed that the notion of “Project-Based Service Learning” sets a closer precedent to my interest in community-engagement projects – typically for post-secondary programs, but also for the high school level.

Narrowing in on my exact topic, I found an ally in Ken Robinson and in various charter schools, or schools that happen to be adjacent to major tech companies in California; however, I found no academic literature suggesting ‘shop’ as a focal point for community engagement–specifically, at the secondary level in a public school setting. Before carving out my own niche and attempting to add fresh material to existent literature in Chapter 4, I will connect the aforementioned dots and map out the research that is currently available.

As a precursor, it is helpful to look at traditional perceptions of ‘shop’ class in public education to establish a need for vocational programs to increase their relevancy within the broader school community.

Vocational versus academic: a brief history on perceptions of technology education

For decades, not only have vocational programs such as Technology Education had a systemic distinction from academic or “core” classes; they have also had a perceived lower or non-essential status within our school systems and our communities (Crawford, 2009; Little, 1992; Robinson, 2015a; Robinson, 2015b). As Judith Little (1992) observed:
Even as we try to imagine and invent new forms of schooling, or new relations among teachers, we find our descriptions of present practise confined by the conventional dichotomies: in this instance, academic versus vocational programs, purposes, and subjects; academic versus non-academic students, teachers, and departments. A more integrative language remains elusive” (p. 4).

Matthew Crawford (2009) has witnessed this dichotomous perception of “knowledge work” and “manual work” pervading trades-based careers as well. He aptly points out that our society’s view of “the plumber with his butt crack, peering under the sink” (p. 20) leads most parents to cringe at the thought of their children becoming tradespeople over gaining a university degree – even if that plumber makes competitive wages and has more stable work than a university undergraduate.

My personal experiences with this dichotomy have been glaringly present during my first years as a teacher. Even as a teacher-in-training, our faculty at the University of British Columbia often did not know what to do with our Technology Education cohort. A common reaction amongst our peers and instructors was “Technology Education...like, computers?” Our cohort was tucked away in a dark and dreary “Tech” room in the Faculty of Education building, with broken machines and out-dated technology. We were, by default, made to become extremely self-sufficient despite the high demand of our specialized field.

Throughout my teaching practicum and my first two years of teaching, I personally witnessed the “erosion of budgets and loss of faculty” (Little, 1992, p. 10). For example, although there were three full-time shop teachers at Highland Secondary three years ago, I am currently the only shop teacher. Despite a BC-wide increase in demand for trades-based skills, I frequently speak with other shop teachers in and outside of our district who feel de-prioritized in their schools, and are frustrated by shop closures, budgetary constraints, and a lack of
administrative support. I feel that, although I felt supported by my administration when I first started teaching in 2015, I am constantly fighting against the shops serving as a “dumping ground” for problematic students. If I am going to work towards making my shops more relevant, then changing traditional perceptions of Technology Education within my school and community at large is absolutely a first step. I believe that overcoming the dichotomy of academics versus vocational programs will establish and promote the shop as a reliable and innovative means of connecting school to community.

In my mind, collaboration with other subject teachers would be an added means of overcoming the aforementioned dichotomy. Further collaboration with community stakeholders outside of school walls will be an aspect of such a program.

**Collaboration**

The idea of moving from “sole responsibility” to “collective responsibility,” as promoted in *Envisioning a Collaborative Response Model* (Hewson, Hewson & Parsons, 2015), spoke to me. I especially connected to the idea that one teacher cannot possibly fulfill all the different needs of students in a classroom, and I take this one step further in believing that one teacher could not possibly bring all the required components to make such a program successful. Community stakeholders and other subject teachers would absolutely take part in making this type of program truly enriching, and making the shift from “*my* students to *our* students” (pp. 51-52).

**Project-Based Learning**

In Meyer and Wurdinger’s (2016) review of existent literature on the benefits of Project-Based Learning, several clear benefits stand out, including:
1. [PBL] enable[s] students to learn how to work in groups and communicate what they have learned.

2. [PBL is] effective at improving attitudes and motivation, and has been especially strategic with lower achieving students.

3. [PBL] develops students’ higher-level thinking in areas such as problem-solving skills, planning, and self-monitoring.

4. [PBL] students learn collaboration skills as they share ideas and points of view with their instructors, peers, and adults within the community (Meyer & Wurdinger, 2016, pp. 93-94).

These positive findings are a motivating springboard for my research, as I seek to enrich learning in my shops through collaborative and project-based work. In my current practise, students have opportunities to learn skills for their own individual projects, but there are rarely – if ever – opportunities for them to collaborate and effectively problem-solve on projects together. Moreover, I seek to enhance student learning by adding in the element of community contribution.

**Service Learning: a means for educating through community connection**

Witmer and Anderson (1994) composed a veritable guidebook on how to start a service-learning program at the high school level, and defined “service learning” as a “process of learning through the experience of rendering service in the school or community and actively reflecting upon the experience” (p. 3). Although the authors did not refer specifically to a
project as a vessel through which to engage in community service, they reinforced Rich Cairn’s (1993) key outcomes for students in service learning:

- A capacity for action—they make a difference; they meet real needs.
- A sense of self-worth—they develop moral and human values.
- Citizenship skills—they develop a connection to, and responsibility for, leadership in the school and community.
- Improved academic skills—they think critically, and they gain and apply academic skills and knowledge through study of community problems (Witmer & Anderson, 1994, p. 29; originally quoted in Cairn, 1993, p.15).

The key to service learning here is that students learn best when they are doing, they are serving, and they are reflecting; interestingly, Witmer and Anderson promoted student reflection as one of the most important and necessary aspects of effective service learning (1994, pp. 46-48). Furthermore, the authors reflect Freirean notions of revolutionary education in that service learning refuses to see students as “empty vessels” and promotes them as active “resources for community problem-solving” (1994, p. 6; p. V).

Logistical take-aways from Witmer and Anderson’s *How to establish a high school service learning program* guidebook that are relevant to my research area will be discussed in the following chapter.
Project-based service learning

As it has been established, there is abundant support to believe that community contribution (“service learning”) and project-based learning is of invaluable benefit to student learning, and reflects modern moves in education as well. So why not combine the two? In her article on Project-Based Service Learning, gomez-lanier (2016) builds on the idea of Project-Based Learning by incorporating projects that specifically work to ameliorate community. As gomez-lanier (2016) has described, Project-Based Service Learning “interweaves learning objectives and service objectives to create mutually beneficial environments where community service recipients benefit and the students obtain a rich learning experience” (n. p.). She has explored a particular post-secondary design program in the southern United States that has students work together and with a community non-profit organization to develop designs for better low-income housing. Although gomez-lanier’s research is focussed on the post-secondary level, she establishes the tangible benefits of such a program where students work “with a real client to solve a real world problem” and where the “service part of the project is an important contributor toward student personal growth and connectivity with the community” (n. p.).

Existent project-based service learning incorporating shop class

Although most of the literature I have found related to my subject area is non-academic and based outside of Canada, there are several inspiring programs and fields of thought that related to and corroborated my research topic.

High Tech High. Larry Rosenstock, the founding principal of San Diego’s High Tech High, defies traditional views of schooling in several ways, and reaffirms several points necessary for
a successful multi-disciplinary program to succeed (Edutopia, 2012). First, he believes students are better served if they are not segregated according to “track;” that is, whether they are “college-bound” or academic, or “non-college-bound” or vocational. This theory of integration works to solve decades of subject-based isolation and allows students a more holistic experience of what is available to them. Second, Rosenstock emphasized community connection, saying:

You don’t want to warehouse kids away from the world outside them, the world that they’re preparing to enter as young adults...you want the walls to be as permeable as possible – no longer to be the citadel apart from community, like the very first schools were one thousand years ago (Edutopia, 2012).

This philosophy resonates with my own personal experiences of community integration and participation as a young student. Rosenstock outlines the founding principles of High Tech High’s programming by discussing several take-aways that most people share when thinking of their most memorable learning experiences: “It was a project, it involved community, it had fear of failure and recognition of success, it had a mentor, it had a public display of work, it had all of the things that High Tech High is based on.” Finally, Rosenstock offers essential advice for any school attempting to create an inter-disciplinary program: teachers must have embedded collaborative time to meet with each other (Edutopia, 2012).

A phenomenal example of High Tech High’s theory in practise is toys that students made in collaboration with parents and support workers of students with special needs. This project is “Design Thinking” in practise: High Tech High students met with “clients” (parents and therapists) to learn about the therapeutic needs of the participating children, researched brain development and what elements of toys (color, shape, and movement) would work well for particular children. They built mock-ups that they received feedback on from the parents and
children, then presented the final toy in exhibition format to the child and their family (MacKay & Lytle, n.d.). Akin to gomez-lanier’s (2016) research on Project-Based Service Learning, this program enhances student learning by getting students into their community and finding hands-on solutions to real-world problems. This school and program are inspiring, although it must be noted that execution of such a program will be significantly more difficult in a public school setting due to budgets, practicality, and other limitations.

**Studio H and Unprofessional Development.** In Berkeley, California, designer and educator Emily Pilloton co-founded Studio H, a charter school program that teaches students hands-on skills such as carpentry, metal fabrication, and model creation and design, as well as other skills such as “teamwork, problem-solving, and critical reflection” (Allen, 2017). Inspired by local issues of homelessness in her own hometown, Pilloton now encourages students to look out into their own communities and come up with solutions to local problems. Examples of projects have been tiny homes (including one that was donated to a homelessness transition society for a family), chicken coops, and farmer’s market stalls for rural community-building.

Pilloton has created “Unprofessional Development,” a resource-sharing website for teachers who wish to teach community-based, hands-on learning to educators and have them translate these ideas to their own local realities. The “big ideas” of this program are:

1. Building things can connect students and their communities.

2. Design-build projects can help students develop empathy.

3. Design projects encourage new kinds of thinking.

4. Projects can be a pathway to further education.

In terms of building empathy, I also see this type of program working well in collaboration with Social Studies or Social Justice programming within a school. As Allen (2017) has noted in her conversations with Pilloton:

Rather than applying their skills in a vacuum (or on paper), students in her program must consider the needs and feelings of their users while they create their projects. The Berkeley students who built the pair of tiny houses, in fact, came up with this project idea on their own, says Pilloton, after hearing their own families and friends struggle with the housing crisis in their hometown and around the San Francisco Bay Area (n. p.).

Both Studio H and High Tech High are encouraging for my research area; however, these are both specialized programs operating in their own realm of budgets and flexibility. These are also both American programs that might translate differently in a local context.

-make magazine and analy high, CA. Ken Robinson (2015b) looks at a current program in Sebastapol, California, where the shop program at Analy High School had essentially been shelved in lieu of the school’s focus on standardized testing and assessment. Students were given an opportunity to create marketable, “do-it-yourself” projects with employees from Make magazine, and the popular program expanded to one where students now find projects in the community, pitch ideas to their classmates, factor in time and cost, and create pieces for local breweries and other organizations. Additionally, teachers collaborate – for example, the Finance teacher at Analy plans to run a unit on student business and entrepreneurship.

Robinson uses this example as proof that integrating vocational and academic programs has far greater impact on student success, encourages cultivating all aspects of human intelligence, and goes on to wonder if alternative programs – where there is typically greater ability to incorporate a range of practical and academic skills – might even have a better educational model than “normal” schools. It is encouraging to see the revitalization and diversification of a
traditional shop program, and my hope is that this revitalization can be done here without the financial and moral aid of a large and influential tech company nearby.

**Penticton and Campbell River Initiatives.** Several years ago, I met Kevin McGifford, a teacher in Penticton, British Columbia, at a BC Technology Education Association conference; and, in 2015, a friend told me about his unique Career Transitions program at Penticton High School. McGifford, an automotive teacher, began this skills-based, hands-on course with a smaller group of students. Together, the students come up with initiatives they would like to help out with in their communities – from painting over graffiti to refinishing benches for the Summerland Ornamental Gardens (Crompton, 2013). Notably, in 2012, the students built a playhouse for Habitat for Humanity, and raffled it off as a local fundraiser. McGifford notes that, not only do participating students buff up their resume, they also develop skills in determination and perseverance.

Similarly, Breanna Gale, a shop teacher at Phoenix Middle School in Campbell River, ties community connections into some of her class projects. Gale runs a “legacy project” with her Grade 8 students, where they use their learning to do “good things within the community and around the world” (Davies, 2016). According to Gale, she hopes that projects such as toys for kids in Guatemala, stepping stones for neighbors, and benches for the school’s bus loop, will teach students to “give back when you have the opportunity to make a difference…I want them to go off and be a positive influence in the world” (n. p.).

**Conclusion**

In this chapter, I have utilized literature to help establish that there are precedents for project-based service learning, and that – although mostly in a postsecondary or charter school
setting – shop class can take a role in enriching student learning through community engagement. I believe there remains a gap in academic literature about the role shop classes can play in service learning within a public high school setting, and hope to contribute to this gap through my research project. Moreover, I take to heart a central piece of advice from Witmer and Anderson (1994): that a successful service-learning program must be contextual based on my own local community, which is here in the Comox Valley (pp. 15-18).

In the following chapter, I will delve into the research methods I plan to use for this project.
Chapter Three: Procedures and Methods

Introduction

In Chapter One, I offered details of my personal background, and the path to arriving at my research question: “How can shop class serve as a focal point for community service-learning, and what precedents of Technology Education-centred community service projects or programs exist in British Columbia?” In Chapter Two, I established the benefits of both Project-based and Service Learning as a means of enriching student experience in high school, and as a means of ‘shop’ class becoming a more integral part of the school and greater community. I also established a gap in academic literature when it comes to shop-based project service learning, and, through my research in Chapter Four, I hope to contribute to this field.

This chapter will outline research methods and how I will be collecting data from participants for this study. The research project seeks to explore precedents of BC high school ‘shop’ classes engaging with community—either in the context of a full course or a single project within a course. Data will be collected through one of three methods, depending on the preference of the participant: either an open-ended online questionnaire through the Survey Monkey Canada server or one-on-one recorded phone or face-to-face interviews. I will take notes on recorded phone interviews as opposed to direct transcription, and will ask the participant for a summary of important points that they would like me to remember. Findings will be synthesized and presented in the form of a thesis, with the intention of building a sharable website in the future for other shop and non-shop teachers to reference. I also plan to present this study at both the VIU Masters Conference in 2019, as well as the BC Technology
Education Association (BCTEA) conference in 2019. Finally, my hope is for this thesis to be published to the VIU Space resource library.

**Rationale**

In Chapter Two, I synthesized the literature to establish that there is a gap in academic literature pertaining to Technology Education as a vehicle for project-based, service learning in public high schools. It is my belief that ideas are rarely completely “new” and that, within our provincial community of teachers, there are like-minded teachers who have come up with variations of an idea in the past. To avoid reinventing the wheel when it comes to my area of interest – that is, using ‘shop’ class as a focal point for students to engage in their community – I plan to execute the following steps for my research:

1) Recruit BC Technology Education teacher participants through a recruitment call-out on the BC Technology Education Association (BCTEA) Facebook page.

2) Through open-ended, semi-structured questionnaires or interviews, depending on the preference of each participant, gauge what is already being done in the province when it comes to community-engagement shop projects, delve into what has worked for teachers and what has not, etc. (See Appendices C and D for a full list of interview and questionnaire questions.)

3) Synthesize this information into my thesis paper, with the intent of using this information as a springboard for my own programming here in School District 71, and for sharing with other shop and non-shop teachers who wish to create such programming.
Connection of project to provincial and local initiatives

The changing face of 21st century student success skillsets are conveniently laid out in the new BC Curriculum (2017)—both generally across all subjects, and specifically for Applied Design, Skills, and Technology (ADST). This provincial curriculum shift is further motivation for my chosen topic of interest. Such skills include problem-solving, design thinking, working and collaborating with others, the ability to design and make, and community engagement (Province of British Columbia, 2017). “Design thinking,” in particular, is where students would develop skills in communicating and creating a project to serve a purpose for a specific clientele, as opposed to traditional personal projects.

Additionally, as of September 2017, Highland Secondary’s teaching staff has voted to focus on “community connections” as its central mission. The intersection of these provincial and local directives with my own personal interest in community engagement feels serendipitous! It is worth noting, however, that our administration has not provided any scaffolding or substance to get “from here to there” in terms of community connection. We currently have no embedded time to collaborate with other teachers or community members, which makes my goal of a community-engagement-centred course feel next to impossible. The only time I find I can actually invest thought and energy into these issues is during our Masters’ program time. I hope that my investment of time and research into this area might serve as a guidebook for other shop teachers wishing to introduce these concepts into their programming.

Research design description

Step One: Recruitment. Thanks to Steve Claassen, a Technology Education teacher in the Comox Valley and former member of the BC Technology Education Association (BCTEA)
Executive, the BCTEA has had a Facebook group running for several years. This website acts as a forum to share ideas, ask questions, and even serves as a form of mentorship for teachers across the province, and membership to the page is completely voluntary. I used this forum to initially recruit participants with a call-out script (see Appendix B) and compile a list of contacts. I hoped for a maximum of five interview participants, and as many online questionnaire participants as possible. I expected all participants would be current or retired Technology Education teachers, and adults above age 19.

**Step Two: Data Collection.** Upon REB Application approval, I began my data collection with participants. Participants had the option of either filling out an anonymous online survey or having a one-on-one interview with me, which I took key-point notes on. My intent was to appreciate teacher time by offering flexible options. Questionnaires took no more than 20-30 minutes to complete, and I hoped to limit interviews to no more than 30-45 minutes, depending on how detailed the participant chose to be.

*Questionnaire or Interview.* Both the questionnaire and the interview asked open-ended, semi-structured questions in the hopes of gathering qualitative information about teacher experiences with community-engagement programs. Teachers were encouraged to write or speak in as much detail as they wished, and the presumption was that interviews would be less structured, as there would be room for tangential conversation and elaboration, if the participant wished. The online questionnaire, because it would be filled out on a computer, was more structured than the one-on-one interviews, and it was less conversational.
Teachers were asked whether community engagement took the form of a single project within a course or an entire curriculum, what aspects of the project they found successful or unsuccessful, whether students reflected upon the project, teacher impressions of student engagement in community-building projects versus traditional individual projects, and what advice they would offer teachers interested in starting up their own variation of service learning projects in the shop. Please see Appendices C and D for a full transcript of questions.

Step Three: Reading Literature. There were several components of programs researched for the literature review that I kept in mind while interviewing participants—namely the style of service-learning project, opportunities for student reflection on projects, and the need for teacher scaffolding.

Witmer and Anderson (1994) identified several design ideas for what a high school service learning program could look like, and indicated that a single “curriculum-infused” community-engagement project within a broader course – as opposed to an entire semester curriculum or after-school program – is likely the most easily attainable method, due to lower cost, simpler planning, and the ability for a single teacher to start small and build the program up.

As Witmer and Anderson (1994) also observed, effective and open-ended student reflection is a necessary component of a successful service learning program because it enriches the simple execution of a project by allowing students to “identify…values, assess personal skills, develop empathy for others, and compare their assumptions to real-world experiences” (pp. 47-48).
Finally, in their article “Teaching with Soap: Examples of Project-Based Units for Students and Future Educators,” Farrell and Hamed (2016) identified several points present in successful project-based learning units, most notably the need for teacher scaffolding, clear guidelines on project goals and how to effectively work together, and corroborating the aforementioned need for student reflection.

**Step Four: Data Synthesizing, Thesis Writing, and Beyond.** Once I collected my data through the aforementioned methods, I synthesized my research to present in Chapter Four of my MEDL thesis. In the future, I plan to create a sharable resource or website for other shop and non-shop teachers to use as a reference for their own community-engagement projects. I also plan to present my findings at both VIU conferences and BCTEA conferences in the form of workshops, and would be interested in running Professional Development workshops for teachers in School District 71 as well.
Chapter Four: Findings and Results

Introduction to results

In Chapter Three, I established the intentions and methods used for my research collection. This exploratory study examined precedents of British Columbia Technology Education teachers incorporating community engagement into student projects. I collected data through an anonymous online survey or a one-on-one interview, depending upon the preference of each participant. All respondents were recruited through the British Columbia Technology Education Association (BCTEA) Facebook page.

Results from survey

My data collection brought in eight participants overall. Five respondents participated in the anonymous online survey, and three respondents participated in one-on-one interviews. Because the online questionnaire was completely anonymous, there is no background data about the teachers interviewed aside from the fact that they are Technology Education teachers in British Columbia.

As for the interviews, the respondents represented a variety of teaching contexts and backgrounds. Two of these interviews took place over the phone with Technology Education teachers from BC’s interior region, and one interview took place in person with another Vancouver Island teacher. Two participants were male, and one participant was female. One teacher teaches at the middle school level; one teacher teaches at a secondary school; and one teacher was a Technology Education teacher for many years, but is now an administrator.

Whether participants chose to respond through an anonymous online survey or through a one-on-one interview either in person or over the phone, the questions posed to both groups
were identical. The questions were kept deliberately similar so that the results of the online interview and the one-on-one interview could be compared and the results could be presented together.

I begin by summarizing the project and program details of all participants, then go on to summarize and synthesize participant responses to each question asked.

**Project and program details**

When asked whether the respondent had run community engagement in their shop as a single project or as a full course, six of the eight participants responded that they incorporated community engagement as a project, but did not incorporate it as a full course. Two of the eight respondents ran alternate programs with “shop” as a focal point: one as a trades-based program, and one as a full community-service “Planning” semester program that used shop-based skills as a means for fundraising and service learning.

Projects built by students of the eight respondents ranged greatly, and included:

- Community benches for parks
- Sheds
- Furniture Repair
- Information Kiosk
- Mahjong games and cutting boards for senior’s centre
- Remembrance Day crosses for local cemetery
- Planter boxes
- Dog houses, cat scratching posts (for local animal shelter)
- Birdhouses for bird sanctuary
- Automotive services for staff and broader community
- Playhouses for Habitat for Humanity
- Restored canoes and welded signs for local museum
- Refurbished benches and signs for local ornamental gardens
- Benches throughout middle school
- Driftwood project (candle holder) with driftwood from local beaches
- Tree Nursery, reforestation
- Toys and ornaments for low-income children and families
• Toys and ornaments for non-profit organizations, both locally and internationally
• Painted exteriors of businesses – prepping for graffiti competition through Downtown Business Association

Summary of participant responses

How service learning projects were chosen. Question 4 asked participants: “How were the projects chosen, and how much of the decision-making process was teacher-based or student-based?” This question originated from my awareness that the new BC curriculum calls for more working toward more student-led, competency-based learning in, but my own inability to reconcile fully student-led learning within the context of a skills-based program and the complexities involved with facilitating multiple different, student-led projects.

An overarching theme with most respondents was that, although they would like projects to be entirely student-driven to increase engagement and student buy-in, it is logistically difficult to leave it entirely up to students—especially in terms of realistic timelines and completion of the project. All participants reported teacher involvement in deciding how and which projects to build, though to greatly varying degrees.

One participant reported being solely responsible for choosing and coordinating projects, while another participant took responsibility for choosing larger projects and allowed student-driven smaller project choices. Two respondents reported a 50/50 balance between teacher-driven and student-driven input. Two teachers, including one teacher who taught community service-learning as a full program, left most project decisions up to students; although, in certain cases, the teachers did much of the organizing and “behind-the-scenes” legwork, especially for younger students or during the inaugural year of a program. Additionally, these two respondents taught in smaller communities, where community-service
learning had already been an established part of the school culture. As one of these participants said during an interview, “The teacher-driven component is always reduced when the project is community-based. Students step up. Everyone wants an opportunity to give. One of the deeper layers is giving kids a chance to feel that emotion of giving to others.”

For two participants, communication with community groups was coordinated by a third party; either a designated Community Liaison for the School District or an administrator at the school. One of these latter respondents made a point of saying that the school’s alternate program would not have been possible without administrative involvement in community outreach.

How community organizations were chosen. Question 5 asked “How did you reach out to community organizations? If students chose community organizations, did you steer them toward certain groups (for example, social justice groups, groups that help the needy, etc.), or did you leave it entirely up to them?” For several respondents, community groups initiated contact with the school. Two participants had their school put out a community advertisement, and replies to the ads were first-come, first-served. For one respondent, if a student had a particular community connection ahead of time, then the teacher would help facilitate this connection into a project that the student was passionate about. Similarly, another respondent contacted community organizations that respondent was interested in to generate initial community connections projects: this, for example, included projects for a local animal shelter.

Finally, the respondent who ran the full community-engagement program would have students generate ideas based on what it was they hoped to accomplish, and perceived needs in the community. After students identified local issues such as poverty and a lack of housing,
this participant would ask how they could provide a service to those local areas out of the shop environment. Many of these projects were in the form of fundraising, such as auto repairs for community members, while other projects involved community enhancement, such as building benches for a community park, refurbishing signs for a local museum, and getting rid of graffiti.

Participant challenges with community-engagement projects. All participants reported various challenges experienced with their community-engagement projects or courses. As with most teacher experiences regardless of subject matter, challenges varied with each group from year to year, but there were several overarching themes. Time spent on projects required major dedication, and it was often stressful for some respondents to meet timelines with their students on a given project. Two participants specifically reported needing to constantly monitor community projects to ensure they were done properly and were completed in time.

Some participants found it was difficult to organize transportation to sites outside of the school for larger community work. Several teachers reported that it was challenging to get all students engaged in projects that were not directly for themselves, or without their projects being all about the marks. Similarly, if a given project was too big, some respondents found that students would be into it for a short while, but then teachers would need to push them through to the end.

One respondent reported that it was challenging to front-load students with the importance of community engagement, and that it was hard to gauge whether it impacted students long-term. This participant emphasized the importance of student reflection, but found that it was hard to get both the project-building and the empathy pieces with time, budget, and school-scheduling constraints. Additionally, this respondent reported challenges
with cross-curricular collaboration due to teachers needing particular credentials to be involved with the shops. That is, although this participant might be able to go into a Physical Education class to collaborate with a PE teacher, this collaboration can often not be reciprocated, because a PE teacher would not have the safety credentials to run shop projects.

One participant made a point of stating that, despite the new BC curriculum calling for more community involvement within schools, community engagement cannot be prescriptive—rather, it must be organic for it to be effective. Finally, the respondent who ran the full community-engagement course reported communication with community groups could sometimes be challenging, in that stakeholders needed to understand that this work was in the best interest of students, and that they were not simply a labor force. This teacher had to say no to some projects due to timelines, and often had to adjust expectations of a given stakeholder.

**Participant successes with community-engagement projects.** Some participants reported lots of buy-in from students when they created projects used to enhance aspects of their community that they themselves had cared about in their own upbringing. Several respondents noted the benefit of students learning about how they could use shop resources and their shop skills to help people in their communities. Additionally, participants praised community-service learning projects as a means of getting students out of the classroom interacting with people they would not normally interact with—for example, seniors and younger children—and broadening students’ scope of whom they knew in their community. As one respondent cited during an interview:
Students see how the skills that they’re learning are not just practical skills...they’re learning how to work as part of a team, they’re working together for a bigger project so they can help out others within their community, and I think that’s a powerful thing. They might not even fully understand it at the moment, but I think looking back, they’ll think ‘wow, that was me who did that [project in the community].’”

**Participant perceptions of student engagement.** When asked about teacher perceptions of the difference in student engagement with community projects versus traditional, individual projects, most respondents reported that it depended on the group of students. Several respondents reported that they tended to see more student buy-in with individual projects for themselves, although many respondents noted that, as long as a student sees a given project (community or individual) applying to their life, the buy-in is there. Two respondents reported that they saw the same level of engagement as traditional project work, in that some students are completely committed, while others do not try very hard. One participant reported that some students wanted to know how much the project was worth; how much it was sold for to the community; and why they were not getting paid!

Two respondents reported significant differences, and observed higher levels of engagement with community projects. One of these teachers noted that community projects tended to be more exciting for students, that these projects created a different dynamic in the classroom and worked to build memories and bring students closer through teamwork and communication. The second participant noting a significant increase in student engagement was the coordinator of the full community-engagement program. They noted an increased sense of responsibility toward others, in that the students did not want to let community stakeholders down. This teacher noticed an increase in attendance and work ethic, and often had students choosing to come in at lunch. This teacher concluded that, although the program
did not have 100% success with all students, there were rarely cases of attrition or student withdrawals.

**Student opportunities for reflection.** In response to whether students had an opportunity to reflect on their experience with the community-engagement project, and what form reflections took, three participants responded that they had not done any reflective pieces with students. Out of the five remaining participants, reflection namely happened through either group conversations within the course or through some form of formal or informal project showcase. Some participants held formal showcase events to parents and the broader community, and noted that these events were always amazing moments, because students get empowered by the positive feedback they receive from the public. Other participants observed informal showcasing, such as students mentioning their pride at using public park benches that they had built with their friends and family.

One participant, who had students build Mahjong games for a local seniors centre, took some of their students to the seniors centre to learn how to play the game, noting that the students had a “very rewarding experience.” This same participant had students build veterans’ crosses for the local cemetery, and planned to have students deliver them personally. All participants who had witnessed students participating in some form of showcase noted that these were always positive, empowering, and reaffirming experiences for students.

In terms of formal written reflections, two participants specifically noted that written reflections had not worked well with their students. Rather, both of these participants stated that reflection would naturally happen as students sat together to formulate a plan for their projects; and, when the project was finished, as it was something tangible that students could
witness. That is to say, participants contended that there is a natural “reflection in doing”, or a reflection-in-action when students build a project with someone else in mind. Most participants concluded that they would like to incorporate more opportunities for reflection, such as a think-pair-share exercise or an exit interview, at the end of a community project or course.

**Suggestions for prospective community-engagement teachers.** When asked what advice they would give to Technology Education teachers looking to initiate community-engagement projects, several participants advised that research and preparation—including realistic timelines, clear goals, researching what the real needs are in the teacher’s particular community, preparing students to commit time and energy, and getting administration and staff on board—are essential. As mentioned previously, two respondents particularly pointed out third-party coordination and involvement was necessary to guarantee project success and avoid teacher burn-out, as teachers would already be organizing and managing the project build. One of these participants cited in the online questionnaire:

I would first encourage [a prospective teacher] to approach admin and request for an administrator to be assigned to take on the community outreach part, for calling out to the community and communicating to the community of what the goals and intentions are of this school program/class/student group. Don’t do it alone. I think the reason our past program was successful is very much because of the strong admin support I had as they were fully taking care of that end of it, while making sure I had professional autonomy in working with my students and selecting the project the students and I wanted to take on, given the projects options that the admin presented to us after they reached out to the community.

Several participants recommended starting with small, simpler projects, so as to have greater success with students, and so as to ensure project completion within a restricted timeline—understandably, larger projects take a lot of energy to complete. Finally, several participants stated the need to keep the students at the centre of deciding which projects to do and asking
how it will benefit the students. For example: Why do this project? What is the objective?

Similarly, two participants suggested approaching students with a few ideas before agreeing to do particular projects because, if there is no student buy-in, the teacher ends up doing most of the work, which defeats the purpose of a community-engagement program.

When asked what teachers would have done differently for their community-engagement projects or programs, two teachers re-stated increasing reflection and mentorship opportunities within the course, as well as having community stakeholders coming into the class first to connect with students on a particular project, and lay out clear expectations, examples, or identified needs of the project. Ideally, having more direct contact with the community stakeholder would encourage lifelong connections—even future employment opportunities—between students and stakeholders; or, if not a relationship with a stakeholder, students would at least have a relationship to the project that they contributed to.

Final participant thoughts and reflections. Overall, most participants chose to re-state the benefits of having students involved in community projects, including:

“As their teacher, you can really see that students’ community is important to them.”
“Especially if you are teaching in an area that is new to you, but where your students have grown up, it allows an opportunity for the teacher to better understand the community and the culture that the students are coming from—this ultimately helps you be better engaged with the students and teach more effectively.”
“I think getting students engaged with the community is a great idea!”
“Constantly try to create situations where students can lead their learning.”
“Not every day is a success, there is not always a finished project every day.”

A powerful story that stood out came from the participant who ran the full community-engagement course. Through shop-based fundraising efforts in the program, students developed surplus funds, and donated them to a local family of an elementary school student battling leukemia, and flew the student and their mother to Newfoundland. The students did
not want any credit or attention for this generous endeavor—they simply wanted to help someone in their community out.

**Interview questions only**

**Budgeting.** A question exploring how these projects or programs were funded was asked to the three interviewees only. Typically, teachers were able to get material donations for community-engagement projects, and tried to avoid using the shop budget for community service learning projects. In one case, not using the shop budget meant some of the funds came out of the teacher’s pocket. One teacher had sponsorship from local businesses; and, in exchange, these businesses would have their name on the project in the local newspaper. One participant did not charge community members for smaller projects, but would ask for money for larger projects. This participant also reported that their community service learning projects were creatively funded through grants, collaborating with others for Professional Development funds, and using a District “Learning Engagement Fund”.

**Cross-curricular collaboration.** As the only full-time shop teacher at my secondary school, I was curious to know about other teachers’ experiences with cross-curricular collaboration as a means of making their community projects happen. Two of the three interview participants worked with other teachers in their schools, to varying degrees. Some student projects within the full community-engagement course involved building things for other teachers, such as lockdown window coverings. Often, collaboration came in the form of course relief so that the Technology Education teacher was able to meet with community organizations or conduct a community event. One teacher replied that, due to their timetable, it was not possible to collaborate with other teachers. There was some collaboration with a
leadership class in the school, but not as much collaboration as this participant would have liked.

Conclusion

Overall, participants were eager to speak to their experiences with community-engagement projects, and had positive, yet realistic, outlooks on the work involved with innovative project-based service learning in Technology Education. This chapter reviewed the findings of my research study. In Chapter 5, I will take what I have learned through my research and draw it into my central conclusions and way forward into future implications and action plans.
Chapter Five: Conclusions

The Purpose of My Research

Through my research, it became clear to me that students who engaged with community service-learning had enriched learning experiences that connected them to their local, real-world context. Furthermore, I found that my own work fitted well with the new curriculum reform in British Columbia because there is a momentum toward community connectedness evident in our new BC curriculum, where “core competencies” such as communication and working with others are expected of students.

However, what seems to be lacking are connections and examples of how school-based work and how these provincial initiatives might work together towards the education of our young people. Specifically, I was motivated to engage my research because I felt there was a lack of research regarding precedents of community service-learning in public schools and Technology Education. In my work, I have in a small way, tried to fill that void.

I am a “shop” teacher. I think my teaching and curriculum can matter to students. I began this research project because I believed “shop” classes could deepen and broaden student learning and increase relevance in schools and the larger community by collaborating and engaging with community stakeholders. There are precedents of Technology Education fusing with community service-learning throughout North America. Although many of these successful examples exist within alternative or charter schools, there are possibilities for such learning enrichment within our public school system as well, as seen in my own research.

One purpose of my study was to establish that Technology Education is a natural focal point for community service-learning, insomuch as students can apply useful and tactile skills to
serve others. A secondary purpose of this study was to connect with other Technology
Education teachers who have set a precedent of either community projects or shop-focussed
community programs in an effort to share these efforts with the broader Technology Education
community, as well as with School District 71.

**My Study and Its Findings**

My central research question was “How can shop class serve as a focal point for
community service-learning, and what precedents of Technology Education-centred community
service projects or programs exist in British Columbia?”

Qualitative data was collected through either one-on-one interviews or anonymous
online questionnaires, and participants were all either current or former Technology Education
teachers. After gathering anonymous online data and analyzing key points from interviews, my
findings revealed that many Technology Education teachers do see the value of engaging
students in projects serving the community, and that there is a precedent for community
service-learning in parts of British Columbia.

Through my research, I was able to identify three main factors that make a community
engagement project or program optimal and achievable. First, reflection in some form—whether
written student reflection or informal class-wide conversations—was considered necessary for
deepening student learning and formatively evaluating the learning taking place through
community service-learning. Second, the involvement of students in the decision-making
process—to varying extents, such as which projects to do or which community organizations to
work with—was seen as a successful tool for maintaining student engagement in the process.
Finally, the addition of a third-party liaison—either an administrator or a designated district
community point-person–led to an increased feeling of capability and sustainability to projects or programs.

Overall, my research corroborated existent literature regarding the benefits of students engaging with their community, and highlighted the positive impact of such programs on Technology Education classes being less of an isolated subject within schools and the broader community. Students were not only able to branch out of their “shop” class and work with other subjects and teachers within school walls, but they were also able to make an impact on their communities.

Limitations

Due to parameters of my research and for the sake of delimiting my work, I only interviewed Technology Education teachers. It would be beneficial to additionally interview students themselves who have participated in such programs and projects across BC to get a feel for their learning and what kind of impact these programs had on their school experience. To this end, it would also be valuable to look at ways that community engagement could be cross-curricular as a means of “sharing the load” and helping these programs become more attainable.

Obviously, because my research study was done in a small way within only one province, my findings are limited to the geographical area and the participants’ contexts who took part in my study. I trust that my findings are both valid and reliable for these participants; however, I am quite certain other findings would reveal themselves should someone replicate my study with other people within other contexts. Thus, my research “voice” is only one voice in a choir of other voices that have perhaps not yet been engaged.
Implications and Recommendations

The implications of students engaging with community outside school walls are resoundingly positive, both in pre-existing literature, and in our new BC curriculum. At a time when our technologies tend to isolate students from one another, it is more important than ever to find ways to connect students to others, and to give them real-world opportunities.

A clear example of the myriad benefits of community connection is the work happening in School District 72 (Campbell River). A colleague and myself met with Drew Williams—an Instructional Support Teacher specializing in Community Connections in SD72. Much of Drew’s job is connecting classroom teachers to community stakeholders, and fostering mutually beneficial relationships between students and other demographics—including Campbell River’s homeless community.

Implications for community stakeholders are multifaceted as well; working with local students who are the future of a local community is an important resource for organizations, as these students could be future employees. Getting students out into the community cannot only change their minds about communities they may have never had access to, but it can also alter community perceptions of young people. Shop students building projects for groups like seniors’ centres can become a great resource and that might lead to mutually beneficial personal connections.

However, implications for teachers themselves are mixed. On one hand, it is great for teachers to fulfill curricular goals and enrich student learning through community engagement. On the other hand, in the absence of a third-party liaison to take on the often-large task of developing relationships with community stakeholders and setting up opportunities, this work
becomes yet another task added to a teacher’s already full plate, and could increase teacher burnout. If not burnout, the prospect of initiating contact, following through, and executing the project on top of classroom duties and facilitating the project in class can feel incredibly daunting for teachers. For myself, my efforts to take on community projects have had to be sporadic, and often there are delays in communication. Trying to make such a program sustainable and repeatable under these circumstances is not realistic.

Similarly, as Drew Williams noted, many community organizations can find it difficult to “plug into” a school district. It can be intimidating to “cold call” either a community group or a school district. Additionally, if community initiatives are left to the whims of an individual teacher as opposed to a cohesive district-wide person, it can be assumed that such isolation would result in other interested teachers reinventing the wheel each time one would like to engage with community. A specified liaison who works across the school district to turn inspiration and ideas into reality, and who could streamline and synthesize community and school connections, would be indispensable.

With these implications in mind, my primary recommendation is that School District 71 follow the lead of the Campbell River School District and work to create a part-time Community Connections coordinator position. As it currently stands, the Comox Valley School District’s closest position to a Community Connections coordinator is more of a Public Relations contact whose primary goal is to publicize initiatives already taking place, as opposed to helping foster, facilitate, and implement these initiatives.
Proposed Action Plans

I hope to work towards two separate action plans in our School District. First, in an effort to create time and space for teachers to come up with community engagement ideas and initiatives within their particular classroom, I believe it is necessary to give teachers embedded time within their weekly school timetable to work together and build these “bigger picture” ideas. Second, I hope that my research, as well as a colleague’s similar research, will initiate a case for a third-party district community coordinator position.

Regarding the first action plan, two of my colleagues at Highland Secondary and myself have drawn up a presentation intended for our administration and staff to propose a realistic timetable for embedded collaborative time. We hope to present this to our school community within the remaining months of the current school year, and ideally propose a trial run of this new schedule next year.

As for the second action plan, I believe that School District 71 believes in supporting its teachers and finding sustainable ways to initiate our new curriculum in a forward-thinking manner. Clearly, there is a drive to improve relations between the School District and the broader community. Based on the precedent of Drew Williams in Campbell River, and the success he has found supporting teachers in their efforts to work with community stakeholders, it is logical that such a position could be created in our district as well. Thus, a colleague and myself hope to petition our district for the creation of a Community Stewardship Liaison position as a means from getting from ideas and theories of community engagement to actually being able to see these initiatives through.
The Difference Between Community Projects and Full Programs of Community Engagement

I believe it is important at the end of my research study to say a special word about the distinction between community projects versus full programs centred around community connections. Such programs would include those researched in my literature review, as well as the Community Connections program one of my participants ran. The holistic nature of an alternative program completely centred around community engagement is something that—in my mind—is the ideal place to get to both philosophically and practically.

Specifically, the flexibility of an alternate program that runs outside of our traditional timetables provides increased opportunity for students to view community engagement as more of a way of being than a “block” of their school day. Although the central motivation for my research has been how to incorporate community engagement within our traditional timetables, as a way of making such programming more accessible and doable across districts, schools, etc., I do believe that full programs have the ability to fulfill our current educational competency goals, and can offer students more differentiated ways of fulfilling these goals.

Conclusion

In summary, the main ideas that came out of this research include:

Main Idea #1: There are visible student benefits—both from existent research and my own research—of helping students think outside of their classroom and school walls, and engaging with their community;

Main Idea #2: Community-engagement projects and programs fall perfectly under our new BC curriculum—both generally and specifically to ADST/Technology Education;
Main Idea #3: Teachers need embedded time to organize these “bigger picture” projects and collaborate with colleagues and community stakeholders in order to fulfill these curricular goals;

Main Idea #4: The support of a third-party liaison leads to greater efficacy and sustainability for community-engagement programs—for teachers, community stakeholders, and students;

Main Idea #5: Student reflection, in some form, is a necessary part of community-engagement projects and programs.

It was a privilege to be able to do this research, and to give time and energy to something I have been both concerned and curious about since before becoming a Technology Education teacher. My hope, through the above-mentioned action plans, is to be able to work with colleagues in my district to create embedded collaborative time in our schedules, and to encourage the creation of a “community liaison” position. I look forward to creating more opportunities for our students to engage in their local community.
References


Appendix A: Interview Consent Form

Shop Class as Collaborative Community Engagement

Principal Investigator
Kirsten Tancon, Student
Master of Education
Vancouver Island University

Student Supervisor
Jim Parsons, PhD.
Department of Education
Vancouver Island University
jbp@ualberta.ca

Purpose:
I am a student in the Master of Education in Educational Leadership at Vancouver Island University (VIU). My research, entitled “Shop Class as Collaborative Community Engagement,” stems from community connection as beneficial for student learning, and I aim to look at pre-existing shop-based projects and/or programs that have been tied to community engagement. My hope is that my research will a) help other shop teachers tie in community-engagement work into their shop curriculum and b) contribute to the lack of general academic research related to Technology Education as beneficial for student learning.

Description:
Research participants are given a choice between an online questionnaire or a one-on-one phone or face-to-face interview. If you are receiving this form, you have stated a preference for an interview. If you agree, you would be asked questions concerning your experience with shop-based, community-engagement projects and/or curriculum, with emphasis on how you went about executing such a project or program, positive and negative aspects of such a project, and your impression of student learning within a community-engaged project. With your permission, the interview would be audio recorded so that major ideas can be noted for my research thesis. Your participation would require approximately 30 minutes of your time. You will be anonymous in the research to anyone but myself, through use of a pseudonym.

Risk of Harm to Participants
The information collected during the interview is likely to be uncontroversial, and thus the research poses only a very small risk of harm to participants.

Management of Research Information/Data
All records of your participation will be confidential. Only my supervisor and I will have access to information in which you are identified. With your permission, the interview would be audio...
recorded and notes would be taken of major points from your interview. At your request, you will be provided a copy of the notes taken, and invited to make changes to the data as you wish (e.g. if you would like withdraw a particular statement you made during an interview). Electronic data will be stored on a password-protected computer. Signed consent forms and paper copies of interview transcripts will be stored in a locked file cabinet in my home. Data will be deleted and shredded at the end of the project, approximately June 30th, 2019.

**Use of Research Information**

The results of this study will be published in my Masters thesis, and may also be used for conference publications, presentations, and published in peer-reviewed journals.

**Participation and Withdrawal**

Your participation is completely voluntary. You may withdraw from the study at any time where practicable, for any reason, and without explanation. If you would like to review and potentially make changes to the notes of the interview, you may withdraw up to two weeks from the time of being provided a copy of the interview notes. If you decline to review the transcript, you may withdraw up to two weeks from the date of our interview. If you choose to withdraw from the study, all information you provided during the interview would be withdrawn from the study and destroyed.

**Consent and Conditions of Consent**

I have read and understand the information provided above, and hereby consent to participate in this research under the following conditions:

- I consent to the interview being audio recorded. [ ] Yes [ ] No
- I consent to having my identity anonymized through a pseudonym. [ ] Yes [ ] No
- I consent to being quoted anonymously in the products of the research. [ ] Yes [ ] No

Participant Name ________________________ Participant Signature __________________________

**Commitment of Principal Investigator**

I, Kirsten Tancon, promise to adhere to the procedures described in this consent form.

Principal Investigator Signature __________________________ Date ________________
Concerns about your Treatment in the Research
If you have any concerns about your treatment as a research participant in this study, please contact the VIU Research Ethics Board by telephone at 250-740-6631 or by email at reb@viu.ca.

Interview participants will be provided a copy of the signed consent form.
Appendix B: BCTEA Facebook Recruitment Post for Participants

Hello colleagues! I am currently doing my Masters thesis, and am focussing on shop class as a resource for community engagement. Have you done either a project or course where students build something for the greater community? If so, I would love to talk to you about it. I should not need more than 30 minutes of your time depending on how detailed you’d like to be, and can collect information by whatever means is most convenient for you (online questionnaire, or phone interview). I am hoping to conduct interviews between now and October 2018. If you have any interest at all in helping out, it would be greatly appreciated. Please let me know in the comments below, or by sending me a private message, and I will add you to my list and be in touch with further information. Cheers!
Appendix C: Interview Questions

Interview
First, thank you for your participation in my research! The goal of this research is to encourage and provide information to other shop teachers around BC so that they might incorporate community engagement into their own curriculum – without having to “reinvent the wheel”. It should take about 30-40 minutes to conduct the interview, depending on how detailed you would like to be.

Clarifications:
- “Community-engagement project/course” refers to any school project (within a shop context) that was built for a community group or members of the community (as opposed to students making individual projects for themselves).
- “Community stakeholder” refers to any non-teacher that was or is part of a community-based group that you have worked with or built projects for.

Checklist:
- Consent form read and signed by both you and myself (the interviewer), with a copy provided to you.
- Please answer the following questions in as much detail as you like.
- Please do not hesitate to contact me if you have any questions or require any clarification at xxx.

1) Please tell me a bit about yourself: the general area of BC that you work in, how many years you have been teaching, and what courses/grades you generally teach.

2) Have you had students build projects for their local community, or used projects as a means of engaging with community in some capacity? If so, does the project/course still exist, or is it no longer running?

3) Was “community engagement” featured as a separate course/curriculum, or simply a single project within a course (for example, out of three student projects, one was community-based and the rest were individual)?

4) What are some examples of community projects you have done with students, and community groups you have worked with?

5) How were the projects chosen, and how much of the decision-making process was teacher-based or student-based? For example, did you as a teacher choose the projects, or did students contact community groups and come up with projects?

6) How did you reach out to community organizations? If students chose community organizations, did you steer them toward certain groups (for example, social justice groups, groups that help the needy, etc.), or did you leave it entirely up to them?
7) What was budgeting like for your community-engagement course or projects? Did funding come out of your school budget, or did you receive assistance from community organizations or grants? Did you charge community organizations for projects, auction, donate for free, etc.?

8) Were you collaborating with other teachers and/or community stakeholders to execute this project/course, or were you leading it on your own? If you did collaborate with another teacher(s), what subject did they teach, and how did collaboration help or hinder your ability to do this project/course?

9) What were some of your biggest challenges as a teacher with community-engagement projects/courses?

10) What were some of your greatest successes with community-engagement projects/courses?

11) What were your perceptions of the difference (if any) in student engagement with community projects (versus when they build traditional, individual projects)?

12) Did students have an opportunity to reflect on their experience with the community-engagement project? If so, what did the reflection look like (written, oral, etc.)? Any stand-out student reflections that you remember reading/hearing?

13) Did students showcase the project(s) to the school/parents/greater community? If so, what did this “showcase” look like?

14) What would some points be for a shop teacher wishing to tie in community engagement, in terms of how to “get started”, structure of the course/project, etc.? If you could run this course/project again, is there anything you would do differently?

15) Any final thoughts/reflections/comments/suggestions/stories you’d like to share?
Appendix D: Questions for Online Questionnaire (Survey Monkey)

1) Have you had students build projects for their local community, or used projects as a means of engaging with community in some capacity? If so, does the project/course still exist, or is it no longer running?

2) What are some examples of community projects you have done with students, and community groups you have worked with?

3) How were the projects chosen, and how much of the decision-making process was teacher-based or student-based? For example, did you as a teacher choose the projects, or did students contact community groups and come up with projects?

4) How did you reach out to community organizations? If students chose community organizations, did you steer them toward certain groups (for example, social justice groups, groups that help the needy, etc.), or did you leave it entirely up to them?

5) What were some of your biggest challenges as a teacher with community-engagement projects/courses? What were some of your greatest successes with community-engagement projects/courses? [put 9 and 10 together]

6) What were your perceptions of the difference (if any) in student engagement with community projects (versus when they build traditional, individual projects)?

7) Did students showcase the project(s) to the school/parents/greater community? If so, what did this “showcase” look like? Did students have an opportunity to reflect on their experience with the community-engagement project? If so, what did the reflection look like (written, oral, etc.)? Any stand-out student reflections that you remember reading/hearing? [put 12 and 13 together]

8) What would some points be for a shop teacher wishing to tie in community engagement, in terms of how to “get started”, structure of the course/project, etc.? If you could run this course/project again, is there anything you would do differently?

9) Any final thoughts/reflections/comments/suggestions/stories you’d like to share?