Experiential Learning and Work Placement Impact for High School Students:

The Need for High School Cooperative Placements

by © Renée C. M. Samson

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Abstract

This thesis explores the role of experiential learning in helping high school students understand their individual talents, interests, and purposes, with a particular focus on cooperative placements. The sections of this study investigate the direct effects these placements have on students' engagement and practical understanding of their chosen fields, highlighting the ways in which hands-on experiences contribute to more meaningful connections with their academic and career goals and discusses how these experiences facilitate a clearer understanding of individual abilities helping students with their career planning and individual decision-making. Furthermore, this study explores how real-world experiences shape students' choices in their high school courses and explores their readiness for post-secondary education and career pathways. An exploration of methodological approaches are presented throughout this investigation, addressing a different aspect of experiential learning and its impact on high school students. The thesis aims to contribute to a deeper understanding of how experiential learning can enhance educational outcomes by aligning students' academic experiences with their personal and professional aspirations, personalizing education for each student.

Key Words: cooperative learning placements, experiential learning, high school students, work placement, impact, personalizing education.

General Summary

This thesis examines the impact of hands-on cooperative learning experiences for high school students and investigates their influence regarding their individual strengths and interests. It also explores how these learning experiences can help students better understand the importance of their academic course selection process and the various pathways they can follow to explore diverse opportunities and discover a variety of career options. Furthermore, the thesis aims to teach us how cooperative hands-on learning opportunities can make education more meaningful for students and explores the importance of tailoring each experience to the learner's individual needs and interests.

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academic passions with confidence and enthusiasm.This achievement is as much yours as it is mine, and I am deeply appreciative of the role you have played in making this possible and for helping me realize my goal.

This thesis aims to address the evolving needs of high school students in our constantly changing world, and to offer meaningful insights for supporting their educational journeys. I hope that this work will contribute to a deeper understanding of how we can better serve and empower the youth of the future.

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INTRODUCTION

1.1 Chapter Overview

This chapter introduces the thesis, which is an ethnographic case study within the Conseil Scolaire Acadien Provincial, an Acadian, francophone school board in Nova Scotia and the experiential learning programs they offer as outlined from the Department of Education and Early Childhood Development. This chapter will include the background information concerning hands-on learning and cooperative placements, a description of the CSAP (Conseil Scolaire Acadien Provincial), and a positionality statement regarding the topic of experiential learning.

The introduction (Chapter 1) is followed by the thesis literature (Chapter 2), the research methodologies (Chapter 3), the findings (Chapter 4), which emphasize both the student as a whole and the importance of personalized learning, and the final chapter and conclusion that reflects on the study's methodology (Chapter 5). Furthermore, this chapter also highlights the study's objectives, aims and research questions and provides a brief overview of succeeding thesis chapters.

1.2 Background information and study context

Doing a co-op placement has let me learn about me... about who I am, the things I like to do and even the things I don't like. Now I know why I need to take certain courses before I graduate and why it's important to finish them to get into the program I want to take for welding. (Violet, Interview Transcript)

Through experiential learning, it is anticipated that students may attain a better understanding with respect to their abilities, interests, and the capacities to assist them on their path of post secondary studies (Benbunan-Fich & Hiltz, 2003; Druskat & Kayes, 2000). Programs that promote innovative and experiential learning that are approved by the Department of Education and Early Childhood Development in Nova Scotia include pathways that include cooperative education opportunities to students that encourage hands-on learning moments for students that help them apply theoretical knowledge to real-world situations. This helps students bridge the gap between classroom learning, practical application and individual course selection, preparing students for future careers and life outside of school that compliments their personal interests. Students should be more involved in their course selection process, as it will ensure that they are more invested in the path that they opt to explore when completing their high school courses (Castellano, Sundell, Overman, & Alliaga, 2012). Created to prepare students for success in both academic and professional environments, accessible to those who choose to take advantage of the opportunity.

The Department of Education and Early Childhood Development is responsible for children's education up to Grade 12 in French and English in public schools across the province of Nova Scotia. Furthermore, Nova Scotia is divided into 7 regional centres of education and 1 provincial Acadian school board (CSAP). Each of these 7 centres and the CSAP are responsible and accountable for student success, education programming and policies. The Department works with the Regional Centres of Education and the Conseil Scolaire Acadien Provincial To develop and implement curriculum, education policies and resources that support individual development, learning and success among students (Nova Scotia Government, 2024).

The Conseil Scolaire Acadien Provincial (CSAP) is the only French-language school board in Nova Scotia. The CSAP has 23 schools throughout the province of Nova Scotia and welcomes nearly 6,500 students. These schools are responsible for teaching French as a first language in the educational programs of the Department of Education and Early Childhood Development. The story of French-language education and Acadian culture in Nova Scotia's social landscape is constantly evolving. Through its mandate, the CSAP contributes to the growth and development of Nova Scotia's French language and Acadian heritage and culture (CSAP, 2024).

Cooperative education (co-op) is a high school academic course, offered in all Nova Scotian public high schools, designed to support all learners in developing the skills necessary to successfully engage in a wide range of education and career pathways. Experiential in nature, learners have the opportunity to explore personal interests and goals with career exploration and real work experience where students can develop skills, explore workplace resilience and benefit from mentorship in community settings throughout Grade 10, 11 & 12 (Nova Scotia Government, 2024). Furthermore, CSAP students have the opportunity to take advantage of bilingual and French work opportunities, opening their eyes to how their language can be used within their communities, reinforcing the importance and value of how their language and their culture enriches their personal and professional lives.

On my first co-op placement I got to work in Mental Health at a hospital. It was a small hospital. I found it very interesting. I didn't think I would ever do a second placement, but this time I wanted to see the difference in a bigger hospital. I am realizing that some people need to be able to express themselves in their first language. Often in our community, this is going to be in French. Even sometimes in our Acadian French. I

learned that we need to have people that can do these types of jobs but also be able to

understand patients and let them tell their story in their own language so that they are

actually understood and we aren't trying to guess what they want to tell us. (Henry,

Interview Transcript)

As Violet's first comment suggests, and as will be discussed subsequently, many of the

study's interviewees share the importance of experiential, hands-on learning, understanding

personal interests, setting career goals and individualized learning experiences. Henry's above

comments further suggest the benefits of community and the importance of language, offering

the perspective of a student that chose to do a second cooperative placement due to their growing

interest in individualized learning and their talents. A course route they did not think they would

be able to follow in their high school course selection, but after experiencing the benefits of the

first cooperative opportunity, realized completing another co-op placement was potentially as

important as any other course to further understand individual aspirations and their career

interests and goals.

1.3 Information and study significance

The Experiential Learning Theory, proposed by David Kolb, defines this type of learning

as the process when knowledge is created through the transformation of learning from

experience (Kolb, 1984). Several studies have stressed the paybacks of such highly engaging

learning approaches (Benbunan-Fich & Hiltz, 2003; Druskat & Kayes, 2000).

Research has also shown that although the experiential learning theory analyzes how such

learning interactions help students explore their own strengths and better understand their

interests, it does not address the individual's interactions with large groups of students or workers

(Cherry, 2022). Another study found that although these cooperative hands-on opportunities

provide innovative options for supporting students with different learning styles since 2006, institutions that have implemented work experiences into the program of study have graduated students with higher test scores due to their new found interest in a specific work field. For instance, knowing that they required specific prerequisites to continue in a specific field of work, student's seemed to work harder in order to achieve their required goal. This study did not consider students who did not take part in hands-on work experiences. (Castellano, Sundell, Overman, & Alliaga, 2012). Research also suggests that the experiential learning theory is too narrowly focused and restrictive and that understanding our own learning preferences may be helpful when developing areas they have strengths and weaknesses (Sternberg, R. J., & Zhang, L., 2014). Such research could help convince others that it would be important for all students to complete a work placement in highschool, assisting them to explore the interests that could lead to a career of their choice.

Cooperative placements offer students the opportunity to test drive different career options helping individuals gain valuable, real world experience that helps them increase their knowledge based on their personal strengths and educational needs while determining their career path (Carnevale, Smith, & Strohl, 2010). By making teaching and learning in secondary schools more engaging, helping them become more college, university and career ready, provides opportunities for youth to learn about career experiences and allows for a better understanding of their abilities and transition to postsecondary success (Balfanz, Bridgeland, Bruce, & Hornig Fox, 2013).

Individualized and personalized learning aren't often possible within a traditional school setting. Many students find it difficult to navigate through the course selection process in high school and depend on others to tell them what to take. These students' hands-on cooperative

placements and the outcome of their experiences, will not only help students gain the knowledge and skills necessary for employment, but also encourage participation in postsecondary education and enable students to earn high school credits, red seal hours, and industry-endorsed certificates (Plank, DeLuca, & Estacion, 2005).

1.4 Research objectives

High school cooperative learning placements and hands-on experiential opportunities play a vital role in guiding students towards their career goals and interests. It is believed that these experiences not only enhance their academic learning, but also provide practical insights into various professions, helping students make informed decisions about their future pathways. This study seeks to achieve the following research objectives:

- **Assess academic preparedness:** Evaluate how cooperative placements enhance student preparation for post-secondary education.

- **Investigate career clarity:** Examine how cooperative placements contribute to student clarity regarding their strengths and interests in relation to their future career paths.

- **Determine educational planning**: Investigate if cooperative placements help students to better identify the specific courses they will require for achieving their academic and career objectives.

Furthermore, I wish to explore the relationship between high school students that follow a variety of different experiential learning pathways, including cooperative placements, the 02 program, and the Building Futures for Youth program. Such pathways require a new method of thinking for many who have only been in a traditional classroom setting. Kolb helps one understand this thought process by sharing the importance of one's hereditary equipment, their

particular past life experiences, and the demands of their environment that develops a preferred way of choosing (Kolb, 1986).

To address the study's research objectives, aims and questions, an ethnography was used as the study's research methodology. The study's research design aims to explain the role of cooperative learning placements in fostering student development, career guidance, and academic success throughout high school education. It included an interview process with CSAP students from various Acadian, Francophone schools throughout Nova Scotia that attended co-op placements, including qualitative inquiry, questionnaires and surveys.

1.5 Positionality Statement

Acadians have a long history in Nova Scotia that began with the arrival of the first European settlers. In 1605, they established a settlement at Port Royal, in what would become known as l'Acadie. Despite facing numerous challenges, including the tragic expulsion known as the Grand Dérangement in the mid-18th century, Acadians persevered, preserving their language, traditions, and their close-knit familial bonds. Communities were displaced and families were torn apart but through it all Acadians held on to each other and their shared identity as Acadians to rebuild their lives; their homes and their traditions. Small acadian communities were created that upheld their language, their heritage and their customs. The collective strength and resilience of their people allowed them to overcome the trials they had faced and hope for the future; preserving the Acadian heritage for generations to come throughout each community (Nova Scotia Tourism Agency).

Today, Acadian culture continues to flourish across Nova Scotia, within several thriving communities creating a distinct society deeply rooted in agriculture, fishing and maritime trade.

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Furthermore, their culture is regularly celebrated through festivals, cuisine, vibrant community traditions and their schools.

The history of public schools in Acadian communities started in the late 1820s, forming schools with successful bilingual graduates and remained this way until 1996, when the government created a province-wide Acadian school board called the Conseil Scolaire Acadien Provincial, referred to as the CSAP (Nova Scotia Acadian Affairs, 2024).

> The Conseil Scolaire Acadien Provincial (CSAP) was created in 1996 to meet the needs of the Acadian and francophone population of Nova Scotia. Prior to its creation, students had attended schools that were governed by a conseil d'école or District School Boards. The CSAP has responsibility to provide French first-language programming in Nova Scotia which is guaranteed under Section 23 Minority Language Educational Rights of the Canadian Charter of Rights and Freedoms (Charter). (Office of the Auditor General of Nova Scotia, 2006, p. 86)

As stated in the CSAP December 2017 report, the Acadian school is more than just an educational establishment. It is a center where members of the community meet and the building serves as a hub for the Francophone community living in a minority situation, helping individuals affirm their identity and live their culture within their community (Ross, 2018).

Growing up in one of these Acadian communities in Nova Scotia, I am proud of my heritage and culture. I want young people to value their language, their culture, their family, their community and their traditions. Being Acadian in the past and being Acadian today are very different realities. For our students to understand the importance of living in an Acadian community, of finding other Acadian students, and other communities and schools that exist

throughout the province, it gives our CSAP students a sentiment of belonging and it's a privilege to be a part of.

It's important for me to share my cultural identity with others. As a student, I didn't know why it was important to be bilingual or Acadian, but I had a teacher when I was in Grade 8, who was passionate for education and her students. She was a positive influence, who radiated through her students. For me, it is important to highlight those relationships and have a positive impact on others around me.

My name is Renée Samson, an Acadian Francophone from rural Cape Breton, Nova Scotia and teacher for the CSAP. I became an educator 15 years ago, with the intention of inspiring and motivating students to reach their full potential. I quickly learned that educators are constantly learning to adapt to new teaching methods, technologies and learning styles/theories to maintain up to date knowledge to engage with students and ignite their curiosity and enthusiasm for learning.

After graduating from Dalhousie University with a bachelor's of science degree, with a concentration in Chemistry, I completed a bachelor of education degree at Acadia University, followed by a diploma in Educational Technology at Cape Breton University, which leads to present day, where I am completing a research study at Memorial University towards a Master in Administration and Educational Leadership. Furthermore, I have had the opportunity to work as a teacher in multiple grade levels from P-12, in resource and in administration. For the past two years, I have had the opportunity to work as the school 02 (options and opportunities) lead. For the first time, I experienced a non-traditional classroom setting with students, organizing hands-on co-op placements within the community and based on student interest and curiosity. Furthermore, it was eye opening to witness students seek placements that highlighted their

interests, allowed them to learn new skill sets, think critically and personally while putting their individual needs at the forefront of their education.

I am motivated to learn more about tailoring learning to the needs of each individual in this ever changing world. Adaptability and critical thinking are essential for student success. Helping students understand that developing their personal learning skills and applying themselves in experiential learning, helps them understand which future pathway is best for the individual's aspirations or career interests.

1.6 The focus of this inquiry and related research questions

The purpose of this study is to explore how student learners come to better understand their personal interests as they guide themselves through high school and shed light on the under-explored experiential learning process and benefits that exist for participants choosing to take part in this process.

After tailoring 29 cooperative placements for Grade 11 & 12 students this year, I feel confident that those students learned about their personal strengths and weaknesses, took ownership of their learning pathways and had the opportunity to learn in a variety of ways, including from those community members who are willing to share their knowledge and their skills with our youth.

Many students find it difficult to navigate through the course selection process in high school and depend on others to tell them what to take. These students' hands-on cooperative placements and the outcome of their experiences, will not only help students gain the knowledge and skills necessary for employment, but also encourage participation in postsecondary education and enable students to earn high school credits, red seal hours, and industry-endorsed certificates (Plank, DeLuca, & Estacion, 2005).

This review is guided by the following questions: How do cooperative learning placements better assist students to prepare for the remainder of their high school post secondary education? After completing a work placement, do students have a better understanding of their strengths and career interests? And finally, are students better able to identify the courses they will require to graduate?

1.7 Chapter Summary

This chapter introduced the thesis, an ethnographic study, that explored how student learners within different schools of the Conseil Scolaire Acadien Provincial come to better understand their personal interests, as they guide themselves through high school and shed light on the under-explored experiential learning process and benefits that exist for the participants choosing to take part in this process. Finally, this chapter emphasized relevant background information regarding experiential learning and cooperative placements, the study context and the research objectives, the guiding questions, and a positionality statement. The next chapter will be an overview of the literature that pertains to this thesis.

II

LITERATURE REVIEW

2.1 Chapter Overview

This chapter surveys multiple areas of research and literature pertaining to the thesis, providing an overview of the literature that is relevant to the integration of experiential learning and hands-on cooperative placements within academic settings. It also provides a summary from various scholars and researchers, offering information divided into four sections regarding youth skills and interests, pathways, critical thinking and research information concerning cooperative placements with individualized learning environments for students. These sections include: Section 1: How do cooperative placements affect students in high school?, Section 2: The development of various cooperative pathways, Section 3: The impact of cooperative placements on the individual's strengths and career interests and Section 4: The impact of experiential learning placements on student high school course selection and future preparation. Literature pertaining to research methodology is touched upon briefly in this chapter and explored in greater detail in the following chapter: Chapter 3, Methods.

Section 1:
How do Cooperative Placements Affect Students in High School?

Section 1 explores the impact of cooperative learning placements in high schools, investigating both the advantages and disadvantages of this educational approach with regards to student academic and personal development. To understand the impact of cooperative placements for high school students, it is essential to first examine the founding principles of cooperative education and how this process has evolved since its beginnings. This discussion

will offer a comprehensive overview of how these cooperative placements have evolved over time and assess how they affect student learning.

2.2 The Advantages and Disadvantages of Cooperative Learning Placements.

Research on the subject of individualized learning and cooperative placements is constantly evolving. Cooperative education, as described by Robert L. Brown, involves on-campus instruction and off-campus work experience where the student has the advantage of applying his knowledge in a work situation. Such a placement can be constructed to accommodate the student, the employer and the individual's academic calendar with a variety of schedules, depending on the school or institution. Cooperative education programs have a potential effect on new methods of instruction, career-step systems and new field experiences for learners (Brown, 1971). This section examines in detail the pioneering work of different researchers concerning cooperative education options, including their benefits and their disadvantages, of particular relevance to this thesis.

2.2.1 The Beginning of Cooperative Education

At the beginning of the 20th century, there was a need for "professional men trained to design and to maintain the industrial plants which are the commercial outcome of scientific experiment" (More, 1908, p. 255). The increased demands for skilled workers required a change to the education system in order to meet the new demands of industry (Grosjean, 2000).

The concept of cooperative education first began to take shape during the summer of 1894, in the engineering field, when civil engineer Herman Schneider discovered that new engineering graduates had very little direct relationship to their field of study, their careers and could not adapt their classroom skills to real work situations. He then initiated cooperative education at the University of Cincinnati for engineering students (Ryder, 1987, p. 4).

After fifty years of cooperative expansion in the United States, cooperative education was introduced in Canada in the late 1950s. The increasing popularity of cooperative programs and space they occupied outside the mainstream (neither completely vocational nor entirely academic) motivated researchers to begin studying cooperative education as an educational strategy (Grosjean, 2000). Furthermore, school reform took its next cyclic journey in the education system, according to James R. Stone III, from the University of Minnesota, when new work programs were designated in 1995, helping find strategies to connect young people in the workplace. Stone III shared that such programs were designed to facilitate school-to-work transition for students offering them workplace education or experience. Stone concludes that in today's public schools, a number of strategies and programs are already in place connecting students to work-based learning opportunities. Such programs are known as cooperative vocational education, internships, school-based enterprises, and the newest addition, youth apprenticeship (Stone, 1995).

Although few students participate in such school work-based learning programs identified by Stone (1995), and even fewer students are registered in apprenticeships, available evidence suggests that students who do participate in such programs gain certain advantages over those who work with companies not connected to the school (Stern, Stone, Hopkins, & McMillion, 1990; U.S. General Accounting Office, 1991). It was also found that in comparison to students who do not take part in such available programs, these advantages include faster transition into full-time employment after high school, fewer deviant behaviors while in high school, more acceptable work attitudes and a better understanding of their education and what is required from them for the workplace. Furthermore, there is a growing body of evidence that

providing students with high-quality work experience has received renewed interest in light of current understanding of how people learn (Resnick, 1987).

Cooperative (co-op) education is similar to internships but more structured in that students are placed in companies during the school year as part of a course for credit, and the student's learning experience is monitored by a coordinator and/or the teacher of the course. Unfortunately, cooperative education seems to have been marginalized due to its association with vocational education, whereas internships can occur in any area of the curriculum (Stern et al., 1995).

Kolb helps one understand this "vocational" thought process based on hereditary equipment, past life experiences, parents' opinions and a preferred way of choosing (Kolb, 1986). Likewise, Braza and Guillo (2015) explore Bandura's Social Cognitive Learning Theory in their study which informs us about the importance of role models and vicarious learning. The immediate world of children is the family and role models in the family may include parents, older siblings and extended members of the family such as uncles, aunts and cousins. Therefore, students may pursue careers as a result of certain individuals in the family who were role models (Braza & Guillo, 2015; Ogunyewo et al., 2015; Egunjobi et al., 2013).

In her 1995 study regarding cooperative education programs, Annette Jackson (1995) studied the challenges that high schools face when preparing students for life after graduation. Her study concluded that although high school students have several options to choose from, when approaching graduation, such as military services, coast guard, work, college, university, community college, etc; the list of options for most students can be narrowed down to two choices--work or school. Furthermore, she shares that many students who possess the interest, ability and financial resources will go on to college; other graduating seniors will not, at least not

immediately after graduation. In the minds of many adults--parents and educators--and students themselves, college/university is perceived to be the preferred choice with the perspective that choosing college or university leads students towards more promising futures, financially. While this may be true, in reality, about the same number of students select college as those who do not. The same study reports that most high schools in the United States guide students towards college, and as a result spend more education and training resources per college-bound youth than those who are not collegebound. There are some high school students who determine early on that they will not pursue a college degree. Many of these students have a strong desire to work, not only after graduation, but during high school as well. Some of these students are able to take part in work-study programs, providing students with on-the-job work experience, also known as cooperative education programs throughout their high school years (Jackson, 1995). In her study, Jackson (1995) also highlighted that Harper (1983) focused her attention on students who attended cooperative education programs in public high schools and stated that such programs should be part of a high school curriculum as long as the students completed all other academic requirements for graduation,while remaining in good standing with passing grades and ensured regular attendance. She also shared that as a teacher, the biggest problem she experienced with the students who took part in the cooperative education program, is that some students were not regularly attending their other courses required for graduation, resulting in lower grades in those classes. She designed a ten week pilot project which closely monitored the absences and academic progress of those who took part in the cooperative education program, achieving her goal to improve the attendance of the students and to have the students maintain passing grades in all classes. At the conclusion of the project, Harper noted that the attendance and grade point averages did improve for these students and could continue to improve, but also

clearly noted that some students require constant monitoring. Furthermore, Jackson (1995) concluded that the D'Amico (1984) study found mostly benefits to students who participated in cooperative education programs in high school, including an increase in class standing, a lower probability for dropping out of high school and an increased knowledge of skills necessary for the workplace. Such placements allowed students to make contacts in the workforce for networking opportunities and build career portfolios to support their application process for work, college or university. The only setback for such working placements that were cited, included the problematic that could exist when participating in extracurricular activities or interfering with a student's study time. The results of this study were summarized by contrasting the levels of intensity of high school work placements with regards to their school schedules. Students who worked modest hours, less than twenty hours per week, exhibited mostly beneficial effects of working. The detrimental effects of working were more evident in students with more intensive work schedules. However, the overall findings of this study confirmed that taking part in school work placements in high school actually taught students skills that increased academic success that employers viewed as important and helped the student actively gain practical work experience in the real-world that complement one's personal strengths, interests and educational needs (Jackson, 1995).

Jackson (1995) also identified the importance of teaching students a work-school balance in high school while exploring a study undertaken by Stern, McMillon, Hopkins and Stone (1990) confirming that high school students need to learn more than good academic skills, students need the opportunity to learn from employers and what is expected from them as employees. It is important to teach students how to apply themselves in a non-traditional academic context, teaching them how to develop good interpersonal skills, increasing their

problem solving skills, and their ability to work as part of a team, promoting the importance of a positive work ethic. The study also determined that working during high school, as part of a properly designed coop program, combined with classroom training, provided a very practical way for students to develop these necessary skills that are not taught in the traditional classroom. Some potential negative effects were also reported: students who worked longer hours spent slightly less time on homework and received slightly lower grades, which did interfere with school work unless a meaningful connection between the two could be shown.

On the other hand, Greenberger and Steinberg (1986) are totally opposed to teenagers working in any capacity while in high school because they feel it hinders students' development and it prevents the individual from taking part in extracurricular activities, which they feel are an important part of the student's high school experience. Their study primarily focused on any type of jobs held by high school students, but also evaluated structured work experience programs in high schools and came to the same conclusion. The study found that such programs were of very little educational value to students because the jobs were menial, not lengthy enough and non-stimulating and as such, did not prepare students for future employment beyond high school (Greenberger & Steinberg, 1986).

Meanwhile, a study by Risk (cited in Stern, 1984) strongly speaks in favor of cooperative placements and supports work experience programs for high school students, regardless of the type of work performed. He feels that to not allow students to participate in work-study programs simply because some adults consider the type of duties performed to be menial, limits students' future opportunities and does not allow them the opportunity to explore their interests. He also argues that even the concern expressed by some, about the quality or duration of work, does students an injustice. The study further concludes that to delay the opportunity to work until

college or after high school, because it does not meet the presumptions held by adults of what is worthy, is to cut off young people from both present experience and future opportunity. No matter the quality of the work experience provided to the student, the argument is frequently made that all work experience is meaningful, supportive and allows for reflection (Stern, 1984). Risk's study (as cited in Stern, p. 405), unlike Greenberger & Sternberg (1986), Parsons (1988) in a report for William T. Grant Foundation, is highly in favor of work-study programs for high school students. In this study she states that all high school students in public high schools should be required to participate in co-op programs because these programs provide such a vital link or "bridge" to the student's future, whether the future includes full-time employment or attending college. In table 1.1, Parsons (1988) provides a list of the advantages the cooperative education program offers.

Table 2.1

Advantages of Cooperative Education (Parsons, 1988)

Advantages of cooperative education:
1. Learning occupational skills is aided by real experience.
2. The school and employer must work together, identifying weaknesses and remedying them before graduation.
3. Joining work-study programs provide a job connection after graduation.
4. The market test is applied all the time; employers will not participate in imparting skills for which there is no demand.
5. Cooperative style education reduces the problem of keeping up-to-date equipment in the classroom.
6. In general, such arrangements force schools and employers to talk to each.

Parsons (1988) views cooperative education as being a vital bridge between school and post-graduation employment and argues that traditional curriculum alone cannot instill good work habits because they provide only an introduction to a chosen career path, instead of actual placement work experience, as does cooperative education. In addition, Parson (1988) identifies a list of disadvantages associated with cooperative education below:

Table 2.2

Disadvantages of Cooperative Education (Parsons, 1988)

Disadvantages of cooperative education:
1. Few skill-training teachers know how to integrate their training with academics. 2. Few academic teachers know how to integrate their coursework with the needs of students who must apply their academic knowledge to occupational skills and job requirements. 3. Depending on how much time is given to on the job training, accumulation of credits for graduation may take more than the usual four years. 4. Students' work schedules may interfere with co-curricular activities limiting cooperative education students from a full and rich secondary school experience.

Parsons' overall finding is that the benefits of cooperative education far outweigh the disadvantages (Parsons, pg. 17). Similar to Parsons, Stern (1984) concluded that cooperative programs were favorable to all students, including those planning to go to college/university, to learn about the real world and to apply their skills in the work-place that are learned in the traditional classroom. In addition, the schools involved in the General Accounting Office (1991) study were selected because their cooperative education programs were identified by various

directors as programs of "high quality" for students. The benefits in the GAO (1991) study were numerous for students, schools, and employers and found experiential co-op programs to be very beneficial to students, but also discussed existing barriers that exist such as staff lacking the time to properly train and supervise students, and the negative impression that cooperative programs are dumping grounds for students who are not strong academically, rather than providing opportunities for students to gain valuable work experience (Jackson, 1995).

For students, as in the Parsons (1988) study, cooperative programs were viewed as being helpful in assisting them in making the transition from school to work and many were offered further employment after their placement. Students also developed an increased level of self confidence and some teacher-coordinators reported that cooperative education students' academic performances were enhanced by participating in cooperative education programs and high school retention rates for these students were improved. Furthermore, teachers reported that students were able to use more modern equipment on the job that is most often unavailable to them at school. Also mentioned was the fact that no evidence was found proving that students were more knowledgeable about career options or increasing skills required to pursue various careers, but they were able to explore different careers on the work site exploring the work schedule, environment and demand. One study indicated that cooperative education students appeared to be a superior group of students when compared to non-cooperative education students (Canna, 1982, p. 3).

Parsons (1988), who advocated that all students in public high schools should be required to participate in cooperative education programs, also commented on the important role that teacher-coordinators play in providing classroom instruction with the assistance from supervisors and employers to develop a training plan to help students develop proper skills and positive

attitudes to successfully perform their job responsibilities while coordinating the activities with

respect to the cooperative education program (Corbin, p. 10). She notes that schools should

accept responsibility in preparing students for jobs, providing them with guidance, and

supervising on-the-job training. She proposes that most of the work done by students on

placement be correlated with what they are learning in school and transfer that when

teacher-coordinators are knowledgeable about the job market they are better able to place coop

students in appropriate jobs according to their interests and the career choices they seek to

explore (Jackson, 1995). Furthermore, such placements help students gain the additional

knowledge preparing students and allowing them the opportunities to attend workshops that

stress the need for developing good work habits and ensuring the required safety training for the

work site (Parsons, p. vii). Such placements also help students learn the importance of the hiring

process and usually increase a student's chance for actually getting a job by ensuring their

preparation for the interview and any pre-employment tests (Parsons, 1988). The role played by

teacher-coordinators and quality of educational training received at school contribute heavily

towards the success or failure of cooperative education programs (Jackson, 1995). As noted from

the literature, there are still mixed views, regarding the advantages and disadvantages of

cooperative education programs. Each section summarized in the literature review confirms that

the overall perception of the cooperative education programs presented in the literature review

view the work program with a mixture of positive and negative opinions whether it be from the

teacher, student or employer point of view (Jackson, 1995).

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Section 2:
The Development of Various Cooperative Pathways

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Section 2 explores the implementation of various cooperative educational pathways in

Nova Scotia high schools. This section begins by defining pathways and examines a variety of

different pathways available to students in Nova Scotia. Furthermore, this discussion highlights the key aspects of selecting appropriate pathways, how students can align their choices with their academic goals while reviewing graduation requirements and keeps a focus on the individual's interests. By analyzing these elements, we aim to understand how cooperative pathways have evolved to support students` educational needs and future career goals.

2.3 Pathways

This chapter introduces the different course options students are able to choose from as a high school student in Nova Scotia. If properly informed of these options within their schools, each pathway ensures a different course selection process that best suits each student's interests, in preparation for a student's high school diploma. Guiding each individual student to consider the various pathways that are available to them throughout their high school experience, offers them a better understanding of their specific interests and their personal needs. Yang and Nadelson concluded that students learn more and want to learn more in their favorite classes and environments, leading them to believe that effective instructional strategies, such as contextual problem-based learning, hands-on learning and teamwork, can increase student interest in a topic and affect student interest and learning (Yang et al., 2015).

2.3.1 What is a Pathway?

There are different ways of educating high school students. According to WRDSB Pathways, students share different interests and require different opportunities to help each individual meet their full potential when applying themselves. They define a 'pathway' as the course route a student will take to reach a particular post- secondary destination. Students should be free to make new pathway choices as they develop new interests, skills and abilities.

Thoughtful course selection that reflects the interests and the abilities of the individual is an important aspect of successful pathway planning for each individual learner (WRDSB, 2022).

2.3.2 Selecting your Pathway

Interest is often defined as a content-specific person-object relationship that emerges from an individual's interaction with the environment (Krapp, 2005; Schiefele, 1991). Whether this environment be a traditional desk with books or a hands on work environment, interest is an important variable in the school context, as it can influence students' levels of learning, their academic performance and the quality of their learning experience (Hidi & Renninger, 2006; Schiefele, 1991; Schiefele et al., 1993). Practical work, or so-called hands-on experience, is one situational factor that is often assumed to evoke students' interest and to motivate them to learn (Bergin, 1999).

WRDSB Pathways shares the importance of helping young people find work and experiences that are rewarding, fulfilling, and those which allow them to contribute to their community. This search may lead directly to an apprenticeship, college, community living, university or the workplace – otherwise called a student's 'initial post-secondary destination' (WRDSB, 2022). Regardless of the pathway selected by students, it is important that the student is motivated to learn and that the student achieves their educational goals successfully (Bergin, 1999).

2.3.3 Graduation Requirements

In order to successfully graduate from high school in Nova Scotia, where this study is conducted, the NS Department of Education and Early Childhood Development, states that to attain the Nova Scotia High School Graduation Diploma, all students require a minimum of 18

credits to graduate. No more than seven of the 18 credits may be from Grade 10 courses, and at least five must be Grade 12 courses. Furthermore, there are compulsory credits which include:

Table 2.3

Nova Scotia High School Requirements (NS Requirements for Graduation, 2024).

Nova Scotia High School Diploma Requirements:
❖ 3 language arts (one in each grade level)
❖ 1 art credit (dance, drama, music, or visual arts)
❖ 3 mathematics (one credit at each grade level)
❖ 2 sciences (one from Science 10, biology, chemistry, or physics, and one other approved science course)
❖ 1 other from science or technology: eligible courses can be found in the Public School Programs (PSP) within the categories of Sciences; Skilled Trades; Technology Education; and Technology Integration and ICT Courses. Personal Development and Society
❖ 1 physical education (eligible credits include Physical Education 10, Physical Education 11, Dance 11, Fitness Leadership 11, Physically Active Living 11, Yoga 11, Physical Education 12, and Physical Education Leadership 12)

❖ 1 Canadian history (African Canadian Studies 11; Canadian History 11; Gaelic Studies 11; Études Acadiennes 11 and Mi'kmaw Studies 11)
❖ 1 global studies (Global Geography 12, Advanced Global Geography 12, Global History 12, Advanced Global History 12, Global Politics 12, and Advanced Global Politics 12)

It is important to note that the NS Department of Education and Early Childhood Development also states that although the minimum number of credits required for graduation is 18, it is recommended that schools develop schedules that allow students to complete 20, 21, or even 24 credits and that schedules should be designed to meet student needs, interests, and abilities (Credit Requirements for Graduation, 2024).

2.3.4 Pathway Options in Nova Scotia

Nova Scotia offers a variety of pathways students can choose from when attending high school. Not all high schools offer such pathways, but they are available within the province and are becoming more readily available within our districts. The following options are available for students in Nova Scotia if the high school has been chosen to offer such options or has the available staff to offer the required courses.

2.3.4.1 Graduation Requirements and Pathways

In order to successfully graduate from a Nova Scotia high school, students must ensure the completion of the 18 required high school credits that are listed in *Table 1: High school requirements (Nova Scotia Credit Requirements for Graduation, 2024).* Such requirements must be completed in Grade 10,11 & 12 by selecting one of the following pathways that best helps

them achieve the courses required to graduate. Although most students will opt to follow a traditional classroom academic pathway, it is important to note that several new pathways continue to be developed, helping students achieve high school requirements in a hands-on setting.

2.3.4.2 Pathway 1: Academic Course Route (Language Arts, Science and Mathematics Based)

This academic course route can be achieved through a combination of high school credits that are made up of more math, science and language courses that are offered within the traditional classroom setting allowing students (pen and paper) to further pursue their career or post-secondary education upon completion of their diploma. Such a course route would ensure the basic requirements along with additional credits in science (chemistry, biology, physics) and math (Pre calculus, calculus). It is important to note that this pathway can be achieved within the student's high school building for the entirety of their high school education program.

2.3.4.3 Co-op Placements (Non 02 Students)

Furthermore, students in Nova Scotia have the ability to complete the course requirements noted in Table 1 and if their school calendars and their course load permits it, they have the opportunity to complete a cooperative learning credit that allows students to experience a hands-on work placement with an employer. Smith and Berg explain that co-operative education placements play a vital role in developing students' applied skills and giving confidence to both students and potential employers at both the high school and post secondary level. They also confirm that co-op education is the work experience that students must integrate into a traditional course for further understanding and that the main motivation for students in completing a co-op program, or placement, is their increased employability skills and increased

interest in their subjects (Smith, Berg, & Smith, 2015). In Nova Scotia, each Co-op credit

requires a student to complete an 80 hour work placement with an employer on the work site.

2.3.4.4 Options and Opportunities (02 Certificate)

Options and Opportunities (O_2) is a three-year high school program with a focus on

career and education exploration, with field trips, hands-on learning experience and a minimum

of three 80 hours cooperative education (co-op) placements, which helps prepare students for

post-secondary education and future careers. This high school pathway allows successful

candidates to graduate from high school not only with a high school diploma, but also an 02

Certificate, primarily recognized in NSCC post-secondary education facilities. This pathway

allows students to attain their high school requirements and spend time throughout their entire

high school experience exploring their interests and their talents outside of the school

environment and classroom. It is important to note that in order to successfully achieve this

second certificate, known as the Options and opportunities (O_2) certificate, students must

complete all high school required listed in Table 1, with the addition of 3 Co-op credits, Career

Development 10 and Community Based Learning 11.

2.3.4.5 Summer Placement Opportunities (BFY)

Building Futures for Youth (BFY) program is designed primarily for students enrolled in

the Options and Opportunities (02 program) or for those who would like to achieve the required

courses for the 02 certificate along with their high school requirements as listed in Table 1. This

competitive summer co-op program that grade 11 students can apply for allows successful

candidates to complete a 5 week summer placement with a company they have been paired up

with to work for 300 hours. Furthermore, successful applicants are trained with specific safety

courses and matched with a local company for paid summer employment. This pathway allows students to learn about the apprenticeship model and complete credited hours towards a future apprenticeship, if they choose to pursue a career in the trades field (Building Futures for Youth, 2024). This model also allows students to complete academic courses within the traditional school setting and out in the work field.

Section 3:

The Impact of Cooperative Placements on the Individual's Strengths and Career Interests

Section 3 explores how cooperative learning placements affect a student's personal strengths and career interests. This section also examines the role of experiential learning in fostering critical thinking skills among students and highlights how these placements help students identify their individual strengths and careers interests. In this section, we aim to understand how cooperative education placements contribute to students' personal growth and career aspirations.

2.4 Experiential Learning

According to Armstrong and Mahmud (2008), one of the most remarkable models on the field of experiential learning is Kolb's (1984) experiential learning theory (ELT). Kolb's model relies on the prior related works of 20th century noteworthy academics i.e., John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers and others, which had previously highlighted the key role of experience in the process of human learning (Armstrong & Mahmud, 2008). Kolb (2005, p. 193) quotes John Dewey's reflection on the need to foster experiential learning in education: "There is a need of forming a theory of experience in order that education may be intelligently conducted upon the basis of experience".

Kolb's theory also points out that to become an effective learner a person ought to respect the following process: thinking, feeling, perceiving and behaving. Firstly, the individuals must perceive information and reflect on how it might impact on some aspects of their life. This entails integrating this information with its own experiences, interests and knowledge bases (Armstrong & Mahmud, 2008), Kolb describes experiential learning to be: "the process whereby knowledge is created through the transformation of experience," where knowledge and critical thinking arises from the individual's ability to reflect and transform new and prior experiences through hands-on learning (Kolb, 1984, p. 41). Katula and Threnhauser (1999, p. 240), also define experiential learning:

It is the process that takes place beyond the traditional classroom and that

enhances the personal and intellectual growth of the student. Such education

can occur in a wide variety of settings, but it usually takes on a learn-by-doing

aspect that engages the student directly in the subject, work or service involved.

Kolb and Kolb (2005) emphasize the importance of better understanding individual learning and transforming the traditional classroom space into an active learning site to integrate what the learner senses. Furthermore, Park and Choi agree that seeing, hearing and feeling what he or she actually knows and likes are essential elements of understanding individual abilities (Park & Choi, 2014). One of the key features of this learning approach is that "learning results from synergistic transactions between the learner and the environment" (Kolb & Kolb, 2005, p. 194). Thus, Kolb concludes that learning is a holistic process of adaptation to contextual changes, trends, and circumstances that shape individual experience and personal growth for each learner.

Experiential learning is an important way to help students realize their natural potential for learning and prepares them to place an emphasis on the 'how to' rather than the 'why' of education (Rogers, 1969). Furthermore, Rogers concludes that classroom-bound learning, traditional lessons and conventional essays have been, and continue to be, the dominant learning method. He states that students need much more in order to grow into holistic professionals who will influence our ever-changing world (Rogers, 1969).

2.4.1 Critical Thinking Amongst Students

Katie Novak, author of *UDL Now! A Teacher's Guide to Applying Universal Design for Learning,* recognizes the importance of multiple means of engagement providing, non-traditional, hands-on options to build purpose and motivation that helps students really commit to learning tasks. Furthermore, Novak argues that it is necessary to recognize that one-size-fits-all experiences have been designed to exclude some learners (Gobir, 2023).

We learn a great deal from making mistakes, but many learning environments discourage making them. This sends a message that mistakes are detrimental and should be avoided at all costs. We need to create environments for students to understand that it's ok to make mistakes (Hoffman, 2011).

Internships are sustained work-based learning experiences designed to enrich and expand classroom learning, showing students how their learning is applied in the world outside of school, offering access to tools, equipment, facilities and expertise that generally are not available at school. (Darche et al., 2009b, p. 11)

Faculty at Abington Friends School suggest that such hands-on opportunities ensure that mistakes are accepted as part of the learning process and that students develop the skills they need to better understand their strengths to problem solve. Furthermore, these programs foster an environment where students feel safe making mistakes, knowing that they can recover, adjust,

and try again. Abington's Friends School also shares the importance of encouraging reflection and states that to truly learn from mistakes, individuals need to reflect on the cause and make changes to achieve a different result in the future. AFS concludes that the effects of experiential education teaches students to examine their actions, emotional responses and their thought processes This internal reflection prepares students for the workplace and helps them make major life choices, improve their personal relationships, and address their emotional needs (AFS, 2021). Furthermore, faculty at AFS conclude that experiential education encourages problem solving and increases creativity when approaching a problem using prior knowledge, personal skills, and teamwork. This mindset teaches students to be open to new ideas, find solutions to complex issues by exploring different perspectives and approaching problems from different angles (AFS, 2021).

Naude (2014) also shares that this self-awareness amongst students is a characteristic that offers value throughout their lives, and experience-based learning helps students develop critical thinking strategies and a vision for their own path. Additionally, Hoffman (2011) argues that experience-based learning can actually accelerate retention and that students with access to hands-on lessons are more likely to retain knowledge and be more engaged in the learning process. Furthermore, Hoffman (2011) concludes that vocational education systems prepare individuals for jobs and understand how they learn and likely feel more comfortable investigating their future interests.

Section 4:
The Impact of Experiential Learning Placements on Student High School Course Selection and Future Preparation

Section 4 examines the impact of experiential learning placements and how they influence high school course selection and preparation for post secondary education or career aspirations amongst students. Additionally, this section explores the idea of individualized learning

experiences and how tailored cooperative placements contribute to preparing students for their future. Finally, this discussion aims to uncover how individual learning placements affect a student's decision making process regarding the course selection process and their individual future.

2.5 Course Selection and Career Aspirations

High school course selection strongly shapes the career and post-secondary choices students have after they leave high school (Naude, 2014). Understanding one's skills and interests helps students better know themselves and provides specialized help with educational, vocational, emotional and personal social decisions in a complex and changing world (Gbenga & Toyin, 2014; Mabula, 2012; Mahlangu, 2011; Eyo et al., 2010; Maluwa-Banda, 1998). Many students find it difficult to know what high school courses they need as requirements to graduate and they depend on others to guide them (Plank, DeLuca, & Estacion, 2005). Amoah, Rowland and Maluwa revealed in a background study that high school years are considered critical for adolescents because they are a transitional period from school to work. Failure by students to make the right choices sadly lead to unhappiness and disapproval by society (Maluwa-Banda, 1998). Also noted in the background to this study is the importance of placements and career guidance programmes put into place to help students understand their own potential and to develop it fully (Gbenga & Toyin, 2014; Mabula, 2012; Alika, 2010b; Hiebert, 2009; Hodkinson, 1998). They are also used to help students develop themselves, to explore options that will assist them to make the right choices and choose their courses based on individual needs (Lazarus & Chinwe, 2011; Omoni, 2013).

Through experiential learning, it is anticipated that students may attain a better understanding with respect to their individual abilities assisting them on their path of post

secondary studies (Benbunan-Fich & Hiltz, 2003; Druskat & Kayes, 2000). Although learning

placements are organized by lead teachers, yet occur with no teacher participation, these

learning opportunities take place in formal educational settings (Thomas, 2014). With the

premise of "the centrality of experience", students have the opportunity to express what they

require throughout their own school process rather than seek career guidance from others (Jarvis,

2010).

2.5.1 Individualized Learning Experiences

The process of making a choice is complex and unique for each individual depending on

cognitive factors and social structures of the individual's milieu (Braza & Guillo, 2015; Durosaro

& Adebanke, 2012). A career choice is a decision that most human beings make sometime in

their lives; it is a decision that should be carefully considered since it can affect the rest of a

person's life (Eyo, 2011). Therefore, the goal of career guidance and counseling is to allow an

individual to explore his or her options (Lazarus & Chinwe, 2011).

Career guidance comprises a range of processes designed to enable individuals to make

informed choices and transitions related to their educational, vocational and personal

development (Watts & Kidd, 2000). The goal of guidance and counseling services is to enable

each learner in institutions of learning to derive optimal educational benefits to utilize his or her

potential (Ibrahim et al., 2014; Eyo, Joshua & Esuong, 2010). It also instills confidence and

positive attitudes, derives fulfillment and inculcates an eagerness for lifelong learning (Ajufo,

2013). Countries need citizens who are able to make the best use of their talents and make career

choices that will help them to be motivated and productive (Hiebert, 2009).

Students should be more involved in their course selection process, as it will ensure that

they are more invested in the path that they opt to explore when completing their high school

courses (Castellano et al., 2012). Our role as educators is to guide students, but not tell them what to do. Our role is also to help students understand the value systems and circumstances so that we as educators can support them appropriately (San Antonio, 2008). Allowing individual opportunities for real-world experience helps students understand what's required for a career and what their personal interests are. Schools, such as Abington Family School, have individuals take on new roles, practice skills, make mistakes, and learn more about themselves including their strengths, weaknesses, and preferences. Furthermore, such schools ensure controlled environments, allowing students to experiment, learn outside the traditional classroom and practice different approaches to a variety of problems. Furthermore, they can decide early if a particular field isn't for them, allowing them to pursue other paths they haven't considered (AFS, 2021).

A study by Doty (1991) compared students who took cooperative education in high school as a preparation course, to those who opted not to. A major reason for the study was that some school officials were concerned about the future of the students who had opted for a general education track, as opposed to cooperative or vocational education. The major concern and the purpose of the study was that they felt general track students were inadequately prepared for the future, whether they planned on college or a career upon graduation. Indeed, the findings showed that of all the courses available to students during high school, cooperative education proved to be the most beneficial in terms of helping students explore the opportunities available in the workfield and help them gain knowledge of employment after high school (Jackson, 1995).

A study by Woloszyk (1991) focused on the student's views regarding the cooperative education program and the factors that influenced 22 high school students to enroll in

cooperative education programs. Valli (1984) also sought to determine the reasons that students selected participation in a cooperative program over other programs offered at the high school in this study. The results of this study confirmed some false notions about the program that included that the students were academic failures, disliked school and that the students only took this program because there were no other courses available to them (Valli, 1984, p. 5). The results also confirmed that several students that had participated in the program excelled academically, were honor students and included students who planned to attend college or university (Valli, 1984, p. 3). These factors were clear indicators that students did not choose cooperative education because they were not strong academically, but because they wanted to "try out" different types of career choices (Woloszyk, 1991). Furthermore, the study sought to determine whether the program had helped them beyond high school. An overwhelming majority of the students who were working felt that the co-op program helped them develop knowledge and skills that they used to help them select their course route, career choices and skills used on their jobs daily. Finally, a study by McNelly (1990) compared the opinions of two groups of high school students--cooperative education and non-cooperative education students. Both groups felt that such work experience helped them improve their employability skills, gain valuable work experience, and make realistic career choices. Neither group felt that working helped them improve their grades or attendance in school. However, the co-op students felt that working part-time did enhance their high school educational experience by improving their attitude toward high school, understanding the need for certain classes and gaining a greater appreciation of their school courses (McNelly, 1990, pp. 9-10).

It is important to note that Jackson (1995), concludes that McNelly's study states that most high school students are given the option of participating in a cooperative program, but do

not realize its value and importance until after they have taken part in such an experience. Those who took part in the cooperative education program with expectations to obtain work experience and learn firsthand about the working world, gained a realistic outlook of life after high school and the majority of the participants made the decision to pursue another cooperative education credit. McNelly also confirms that students usually remain in the program throughout their high school studies after their first experience or make more effort to fit another cooperative class into their schedules in order to learn more about a career choice that interests them (Jackson, 1995). In this study, such placements helped high school students relate to the world of work, learn the employers expectations, and learn the importance of completing high school course work (McNelly, 1990, p. 10).

According to the U.S. Department of Education (1992), every high school should have a School-to-Work system to help communities develop ways to assist high school students successfully make the transition from school to work.The goal of such a system would be to reduce high school dropout rates, produce more qualified workers and assist students in planning for their futures. The Department (1992) report also discusses several high school work programs, including cooperative education and how such programs are highly encouraged primarily because of the impact they can have on students' future careers. However, as important as work experience during high school may be, this report strongly makes the point that the emphasis in all work experience programs and School-to-Work systems should be on learning and not on working. Lesh reported that in the ten years preceding the NCLC study, an effort had been underway to eliminate vocational and cooperative education from high schools because such programs were viewed as ineffective due to the fact that many of the students lacked basic reading, writing, and math skills, and that cooperative education did not help students. Due to

these concerns, according to the NCLC, many schools eliminated vocational and cooperative education work programs so that students could spend more time learning the basic subjects. However, in her study, Jackson (1995) summarizes that effective vocational and cooperative education programs should instead be expanded, not eliminated. Specific reasons are listed below to support Lesh (1985) and his findings:

(1) It has not been their experience that students who are not highly motivated will actually spend more time on learning the basics. However, they could show that exposure to work requirements and the need for competence in the basics at work are strong motivators for learning.

(2) People seem to feel that because employers declare that good work habits and positive attitudes are crucial for on-the-job success, skills are not necessary. Work habits and attitudes are important, but not all inclusive with respect to what makes a successful employee.

(3) Employers would much rather hire a cooperative education student who has proven their work ability than to take a chance and hire an unemployed ex-participant in the program. (Lesh, p. 5)

2.5.2 Gap in the literature

With its alternation between academic and vocational contexts, cooperative placements of academia/ industry cooperation allow students to, simultaneously, acquire a combination of general education and work experience. The demand for cooperative programs continues to grow, however, despite its popularity, our knowledge of it is limited (Grosjean, 2000).
As the pace of economic and technological change accelerates, many Canadian provinces and individual schools offer cooperative programs as part of their curriculum to provide students with work experience. Career education programs and work experience has increased in Canadian

school systems. While learning in schools emphasizes cognitive development, it is important to note that it is also important as they progress through their high school that they gain a comprehensive understanding of 'real-life' work experiences. This is important for linking theoretical knowledge and the practical application enabling students to recognize the relevance of their school curriculum and to bring school practical based problems to the classroom. All Canadian provinces have a variety of work-study and co-op programs linked to the graduation requirements, for instance, in British Columbia, 30 hours of work placement hours are mandatory (which has been the case since the mid 1990s) and just over 40% of Grade 11 & 12 students participated in career preparation programs in 1999-2000 (Georg, 1939).

Finally, Grosjean (2000) states that in spite of the importance attributed to cooperative education in the literature, and the positive views held about the program by researchers, very little information has been collected regarding the cooperative education process. The literature states that cooperative education students have better options for jobs and are, in general, well rounded and productive individuals.

While these benefits are all attributed to cooperative education, there is little evidence about how these advantages are generated, why students choose to take part in the cooperative program and their personal perspectives regarding their participation in the program (Grosjean, 2000). Furthermore, there is a gap in the literature when defining the cooperative as an educational model, alternative program, or a strategy for learning. Studies report that 'something happens' when students enroll in a cooperative program (Rowe, 1989; VanGyn, 1996), and describe what happens to cooperative education students after graduation, but not student perspectives as they participate in cooperative programs along with their impact on the individual (Cash, 1979; Mueller, 1992; Pittenger, 1993). An important question remains, and

little evidence in the literature exists to confirm how many high school students take part in cooperative placements that are not specifically skills trades or vocational students? Would ALL students not benefit from a work placement such as described in the literature above, increasing their workplace knowledge, helping students identify their interests and help them identify their career interests no matter what college or university they plan to attend, if any?

2.5.3 Chapter Summary

According to the Waterloo Region District School Board (2022), providing experiential learning opportunities that expose students to potential career paths well before they graduate while having students participate in work placements develop further knowledge and a greater ability to creatively solve problems. Furthermore, doctoral researcher Sally Hartley, highlights some of the innovative ways in which this engagement is being fostered throughout the world today and how cooperatives provide not just opportunities for gaining an income but play a vital educational role. Offering different pathways for students to learn helps them discover answers on their own, rather than relying on provided materials and they develop interpersonal skills that can't always be learned in a textbook including conflict resolution, teamwork, communication, and creative thinking skills (Hartley, 2011).

It is important to note that teachers in classrooms can share this knowledge with students, but many students feel they have more to gain by confronting these challenges in real life, within a structured and supportive learning system that is offered to students with the guidance of mentors and instructors (WRDSB, 2022). This chapter concludes that many pathways have recently been designed within Nova Scotia high schools to allow students to explore different ways of learning within the traditional school setting and out in the real world.

This chapter reviewed relevant literature that addresses the subjects of experiential learning and hands-on cooperative learning placements within high schools. The literature includes the advantages and disadvantages of such work placements in high school and their impact toward their future studies and career interests. Although the chapter also demonstrated that while the subject of cooperative learning placements has been investigated within schools, there remains a gap to be filled by a study such as this which seeks to examine the impact such school-work placements have had upon individuals' experiences. Finally, it also positions the study in relation to broader conversations concerning the importance regarding the impact of allowing all student participation in a cooperative education program and its impact on the students' individual learning opportunities.

III

METHODS

3.1 Chapter overview

This chapter outlines qualitative research and the ethnographic research design, offering a rationale for the selected methodology. Furthermore, it includes a thorough description of qualitative inquiry as a complement to ethnography and details the specific elements of the study's design, data collection and analysis.

3.2 Research Design and Methodology

3.2.1 Qualitative Method

In qualitative research, convenience sampling is often used in educational settings where it is convenient to use pre-existing groups, such as students and members from a school community (Nikolopoulou, 2023). Through the use of convenience sampling of a pre-existing group of high school students, cooperative education student participants were selected for this study. Acadian, francophone, students who participated in the Cooperative Education 11/12 course, within the Conseil Scolaire Acadien Provincial, were invited to fill out a quick survey of interest if they wanted to share their experiences and perspectives of their cooperative education placements. The participants for this study included grade 11 and 12 students that have had the opportunity to participate in a high school co-op placement. It is important to note that in Nova Scotia high schools, students are able to take both Cooperative Education 11 and Cooperative Education 12 credits as electives (if they choose to do so) or those students who choose to participate in the 02 program are required to complete 3 cooperative education placements in order to graduate with the 02 certificate at graduation. The Nova Scotia Department of Education

and Early Childhood Development in Nova Scotia (2022) , defines the O2 (Options and Opportunities) Program as follows:

Options and Opportunities, most often referred to as O2, is a program designed to help students work toward a career pathway in a context that responds to their learning needs. Students are supported with learning opportunities where they develop skills and make connections to the workplace, post-secondary institutions, and training programs that assist with transitioning to new environments beyond high school. Students enrolled in O2 will develop the competencies and skills needed to prepare them for a lifetime of transitions and learning. O2 is a three (3) year high school program in which students learn together as a cohort in specific courses. These include Career Development 10, Community-Based Learning 11, and English 10 or Français 10. In addition, O2 students are required to complete a minimum of three (3) co-operative education courses (Nova Scotia Department of Education 2022).

This study welcomes all Cooperative Education 11 or Cooperative Education 12 students, regardless if they are enrolled in the 02 program. It is simply essential that they have taken part in at least one hands-on cooperative education work placement in high school.

The main goal of qualitative research is to uncover the thoughts, perceptions, feelings, and behaviors of participants as we strive to learn from others—particularly as we study topics where little or nothing is currently known (Rahman & Caulley, 2007) and seek to describe what Leech and Onwuegbuzie (2007) describe as process-oriented questions (i.e., the *why* and *how*).

Qualitative research involves collecting and analyzing non-numerical data (e.g., text, video, or audio) to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research. Research approaches

involving qualitative methods that include observations, interviews, surveys and secondary

research (Bhandari, 2023).

Qualitative researchers often prefer to use multiple data collection methods which allows

for an intensive analysis of various specific details related to the research topic (LeCompte &

Preissle, 1993). Furthermore, LeCompte and Preissle confirm that the use of both interactive and

non-interactive methods are beneficial in research for two particular reasons. First, interactive

methods, such as interviews, enable a deep exploration of participant understanding and

application of their assessment knowledge in real-time situations. Second, non-interactive

methods provide an objective view of the context within which participants operate, helping to

draw out the data from the interactive methods (LeCompte & Preissle, 1993).

3.2.2 Ethnography Approach

Ethnography is a research methodology in possession of more than one hundred years of

history (Globo, 2008). Ethnography is the art and science of describing and interpreting cultural

behavior from a close textual-analytic standpoint (Wolcott, 1987). While many social science

investigators like to follow a linear pattern of investigation, the ethnographer tends to follow a

cyclical pattern. Creswell, citing Wolcott (1994), notes that there are three principal research

methods utilized by most ethnographers which include participant-observation, field note/journal

writing, and ethnographic interviews.

> Several major tasks include asking ethnographic questions, collecting ethnographic data,
> making an ethnographic record, and analyzing ethnographic data – that are repeated in a
> cyclical manner over and over again (Spradley, 1980).

Agar (2001) observes that ethnographic research has a definite starting point, but that as

it progresses the study is 'emergent': New concepts are learned that suggest new questions; new

knowledge of communication styles suggest new ways of asking them. Furthermore, Fetterman (2010) shares that ethnographers are considered to be a 'human instrument,' who enters 'into a culture or social situation to explore its terrain and to collect and analyze data while relying upon his or her feelings, senses, and thoughts. This human instrument endeavors to be a perceptive and sensitive data-gathering tool (Fetterman, 2010).

3.3 Sample Selection of the Site and Participants

As described in Chapter 1, the principal field setting for this study will take place in high schools within the Conseil Scolaire Acadien Provincial. This study is largely owing to a brief experience in administration when I became aware of the lack of understanding that many high school students have regarding their future goals, their highschool course requirements, their strengths and their personal interests. Presently working as the cooperative placement coordinator for senior high school students, working alongside families, businesses and colleagues teaching O2 students, offering a multitude of different experiences for students to learn about themselves while taking part in hands-on experiences has been an eye opening experience. Lofland et al. (2006) invite novice social science researchers to 'start where they are,' noting that, 'Fieldwork, which demands that researchers participate in the social worlds they seek to understand, has a rich history of capitalizing on investigators' biographies' (p. 13). Students must learn how to discover for themselves and investigate the skills to find answers to questions they seek. Although having a solid knowledge base is valuable in adult life, there are certain skills that textbooks cannot teach students about their individual needs. Many interpersonal skills require nonverbal cues that can only be practiced through observation and practice. Experience-based learning provides these opportunities with the guidance of mentors and instructors (AFS, 2021).

When selecting participants, a grounded theory approach will be used allowing for a looser arrangement, nevertheless, just as challenging since it involves the gradual definition of the sample structure in the research process, otherwise known as "convenience sampling" (Miles & Huberman, 1994). Furthermore, approval has been granted from the Conseil Scolaire Acadien Provincial to work with students within their high schools in Nova Scotia.

3.4 Data Collection Methods and Procedures

Once the 4-6 participants have been selected, this study will be led by observations, journals, interviews and photo elicitation as the data collection methods for this enography. Participants will also log a weekly journal (text) for the purpose of this study. In person interviews will be conducted in French and data will be analyzed with intent to find a common theme within those structured and semi-structured interviews. Although students are francophone, cooperative experiences took place in both French and English, depending on the availability of work sites in our rural communities. All participants are fluently bilingual in both French and English and are able to confirm that the information being recorded is accurately translated to reflect their personal experiences that are being shared.

3.4.1 Interviews

Interviewing is one of the most common ways of collecting data in qualitative studies. When interviewing participants in qualitative research it is important to note the difference between a survey and an interview with interviews that help one understand a situation from the participant's subjective point of view (Tite, 2010).

Rosanna Tite highlighted that interviewing and participant observation are of the primary methods of data collection used by qualitative researchers (Tite, 2010a), since in-depth interviews can be used to gain insight into participants' experiences and act as an effective (and comparatively efficient) data-gathering strategies (Rahman & Caulley, 2007).

When conducting qualitative research, interviewing is a set of techniques for generating data from individuals and/or groups utilizing structured, semi-structured, or unstructured questioning formats.

In short, as has been said elsewhere, method is about "how to" and methodology is about "why to" collect data a certain way. Both are pertinent to research design. Method refers to *how* data is collected: the tools, techniques, or procedures used to generate data while methodology refers to the identification and utilization of the best approach for addressing a theoretical or practical problem (Kaplan, 1964).

The analysis of transcribed interviews is dependent on the specific methodological approach employed (e.g., the meticulous word-to-word transcription of conversation analysis to the more broad-based thematic analysis of ethnographic interviews (Kaplan, 1964). In addition to the semi-structured and structured interview process, students will have the option to use their portfolios to help guide them while sharing their experiences. The ability to probe for more detail, when appropriate, is also a reason for selecting qualitative interviews for this study.

3.4.2 Photo Elicitation

Visual methodologies are a new and novel approach to qualitative research derived from traditional ethnography methods used to understand and interpret images that can include photography, film, video, painting, drawing and collages (Barbour, 2014). There has been recent

enthusiasm for the use of visual methods in qualitative research (Barbour,2014), whereas they add value to already existing methods by bringing another dimension to the interview questions (Balmer, Griffiths, & Dunn,2015) and feedback by capturing rich multidimensional data (Mah,2015) and add valuable insights into the everyday world of participants (Barbour, 2014). Researchers use these images and methods to create knowledge and help participants relive their experiences while sharing their point of view (Thomas, 2009).

According to Pain (2012), visual methods are an effective and acceptable method for qualitative research and are becoming more widely used in multiple disciplines. A specific visual method that can be used in qualitative research is photo elicitation, the use of photographs to generate verbal discussion (Thomas, 2009). The visual images can be used to help individuals elaborate and further explanation can be probed by the informant or by the researcher. Photo elicitation is known as a frequently used technique which involves using one or more visual images in an interview and then asking participants to comment on the visual images used (Bigante, 2010).

In recent studies, using such visual methods to facilitate and enrich communication have enhanced the data producing richer and different kinds of data rather than only verbal methods (Pain, 2012). Visual methods enhance the richness of data by discovering additional layers of meaning, adding validity and depth,and creating knowledge. They add to traditional methods by capturing more detail and different kinds of data than verbal and written methods. Visual methods result in increased trustworthiness of the findings through member checking (Barbour, 2014). Furthermore, photo elicitation produces a different kind of information in the interview process as it evokes different feelings, memories and information (Harper, 2002). The difference

between conventional interviews and photo elicitation lies in the way participants respond to the symbolic representations in the photographs.The parts of the brain that process visual information are in evolutionary terms older than the parts of the brain that process verbal information; therefore visual images evoke deeper parts of human consciousness than words do (Harper, 2002).

Noland (2006) also noted that different layers of meaning can be discovered by using this method. A participant speaking about their own images of documents that have been gathered within their professional portfolios gives them the freedom to choose what they want to talk about in the interview, which makes them more relaxed because they know what the content of the interview will be. The participants can also choose the order of the photographs to be discussed, giving them more power to guide the researcher in the interview (Noland, 2006).

Therefore, photo elicitation can lead participants and researchers toward common understandings (Harper, 2002). In photo elicitation interviewing, the researcher observes the emotions that arise in the participants as they discuss the meanings of the photographs and allows the participants to further describe why they chose to add this to their portfolio. The participant also elicits insights that are not necessarily clear in the photographs.This method allows for triangulation between different information sources and can bring different insights to the research (Bigante, 2010) and therefore increases rigor. Photo elicitation can add additional validity and depth, new opportunities, and new viewpoints (Bigante, 2010). Much of the work and outcome of photo elicitation interviewing is a collaborative effort rather than an individual effort by the researcher and therefore involves joint theorizing which occurs in the interview. However,the researcher still has a facilitative role, drawing out what is needed in the interview and helping the participant frame and formulate their responses (Woodward & Winter, 2008).

Therefore, photo elicitation interviews can be both data collection methods and a form of data analysis. Researchers using this method have found that the meanings and emotions elicited can differ from or add to traditional verbal methods of interviewing (Harper, 2002).

3.4.3 Observations, Field Notes & Journals

As an ethnographic research method, observation seems to have no specific beginning (late nineteenth and early twentieth centuries) when anthropologists started "collecting data first hand" (Atkinson & Hammersley, 1994, p. 249). Gorman and Clayton define observation studies as those that "involve the systematic recording of observable phenomena or behavior in a natural setting" (2005, p. 40). Other authors define observation within the broader context of ethnography or the narrower one of participation observation. What is consistent in the definitions, however, is the need to study and understand people within their natural environment. Spradley (1980) defines participant observation as the "work of describing a culture" with the central aim of understanding "another way of life from the native point of view" (p. 3), while Chatman defined ethnography as a method that allows the researcher to get an insider's view through observation and participation "in social settings that reveal reality as lived by members of those settings" (1992, p. 3).

As Tite describes, there are two main bands of non-interactive data collection: non-participant observation and text analysis (Tite, 2010b). In the context of my study, examples of such non-interactive materials can offer insights into the official guidance provided to teachers regarding assessment and data gathered through interviews and journals. This method (along with participant observation) is considered interactive and is frequently used in combination with a variety of non-interactive modes to build a more comprehensive understanding of a particular

phenomenon (Tite, 2010b). The other type of non-participant observation I would use in my research would be text analysis, focusing on secondary data. Tite (2010) states that using this type of data requires 4 steps: find them, identify the materials so you can document what they are and why they are needed, analysis, and interpretation. Several examples of secondary data that would be valuable to my research would include: student attendance records, teacher lesson plans, student resources, journals, student assessments, etc.

3.5 Data Analysis

The data analysis phase of qualitative research involves organizing and coding the collected data (e.g., interview transcripts, observations, field notes, journals)—followed by systematically reviewing the data to refine or modify initial assumptions (Tite, 2010). In considering the researcher's interpretation of participant meaning, it is essential that we have a good picture of the "art of description," ensuring an accurate interpretation (Shank, 2002).

As part of the cooperative education curriculum, students will document parts of their experiences in their school portfolios which will have journals, observations, photographs, evaluations and further items that will be taken away from the work placement site. Students will have the option to bring these journals or portfolios to the interview to help them elaborate throughout the interview if they choose to do so. If students choose to submit any journals, they will be submitted by participants electronically and interviews will be conducted via Zoom using an audio recorder, taking minimum notes to ensure accuracy. Upon completion of the interview, all data will be organized into key themes, transcribed and conclusions will be drawn about the value of their cooperative education experiences. Finally, the participants will receive an offer to view the final version of this paper upon its completion.

3.6 Limitations and delimitations

This study encountered several limitations that could have impacted the findings and interpretation of the data regarding this research topic. One notable limitation was the limited depth of responses that the participants were able to offer during the data collection process. For example, one participant provided minimal information during interviews, which emphasizes the importance of using photo elicitation techniques in future research. Photo elicitation could potentially enhance participant engagement, which in this study, the use of portfolio images did allow the participant to draw on experiences and then offer richer, more detailed responses. It was noted that providing visual prompts could be seen as useful and stimulate further discussion. The biggest limitation for this study included ethical constraints that did not allow the use of the researcher's own school as a site for data collection. This decision was made to avoid potential conflicts of interest where the researcher was also a teacher that could hold power over the students. This decision was made to avoid objectivity. Consequently, the study had to rely on alternative schools throughout the Conseil Scolaire Acadien Provincial, which may have introduced variability in the data and limited the contextual relevance compared to that of the researcher's own educational environment. Furthermore, it is of importance to note that this data collection cannot guarantee that the participants represent a wide range of genders and diversities. Students taking part in this research were selected from those who shared an interest in co-op education and were willing to share their experiences and point of view regarding their high school course requirements and experiences with hands-on working placements.

In designing this research study, it is important to note that several delimitations were also put into place, in order to narrow the focus of the study. The study was confined to schools within a specific geographic area and school board. The Nova Scotian students in this study will consist

primarily of Acadian Cultural students, limiting the cultural diversity for this study. This delimitation was chosen to ensure manageability and to account for regional educational practices and contexts. While this focus allows for a more in-depth examination of the selected schools, it may limit the broader applicability of the findings to other regions with different educational environments. Furthermore, this study specifically targeted a limited sample of co-operative education students which was a deliberate choice to ensure a detailed and manageable analysis. Although this sample allows for a detailed and comprehensive exploration of the research topic, it may limit the results when considering larger populations or a variety of different educational contexts. These limitations and delimitations are important to consider when interpreting the results of this study and to guide future research in this field.

3.7 Trustworthiness

Corbin and Strauss (2008) define reliability as the ability to collect data as an instrument to yield the same results when used in a similar setting (Corner, 2009). On the other hand, validity refers to how accurate a data collection instrument can be in measuring what it was developed to measure (Dillman, 2010). As LeCompte and Preissle (1993) state, "...scholars simply know quality when they see it" (354). This precise description is necessary to establish the study`s credibility, transferability, dependability and confirmability (Corner, 2009) . In addition, a pilot study will be conducted to determine if the questions are valid, understandable and answerable. This practice will increase the validity as well as the reliability of the study (Dul & Hak, 2008).

3.8 Ethical Considerations

The major ethical issue in this study is to ensure the protection, the confidentiality and the privacy of the participants. The consent forms were issued and signed by participants/ guardians and are stored away safely. No personal information is added to the documents, rather a participant number is associated with the location of each work site and supervisor. The recordings will be added onto a USB in the filing cabinet for the duration of the study. If a phone call was required to arrange a meeting time for the interview, the phone number was erased from my cell phone call history immediately after the interview had been completed for that subject. Furthermore, all data collected for this study was not considered or used as an evaluation for the participants' final grades related to their co-op credit, within their highschool. This ensured that the participant could respond to all data collection tools honestly.

3.9 Chapter Summary

This chapter provided an overview of the research methodology and techniques for data collection and analysis. Following ethnographic and contemplative qualitative research methods, an emphasis was placed on methods such as participant observations, interview data, portfolios and reflective journals. The next chapter will focus on presenting the findings of the thesis, using a thematic narrative approach to interpret the results.

IV

FINDINGS: PERSONALIZING EDUCATION

4.1 Chapter Overview

The one theme common to nearly all definitions of educational innovation is the move to make education more student- or learner-centered. This is also referred to as "personalizing education" and can include discovering individual students' talents (Smith, 2021).

Cooperative education placements ensure personalized learning environments, allow for networking opportunities, a variety of work environments and life skills. Furthermore, cooperative placements allow students to explore different industries and career options. By gaining hands-on experience in various fields, students are able to make informed decisions about their future career paths (Smith, 2021). This chapter explores the impact of cooperative education work placements on students' academic and professional development. By interviewing students who have had the opportunity to participate in co-op work placements, as part of their high school credits, students share their perspectives, the benefits and the challenges they've encountered. The findings reveal a multifaceted perspective on how such practical experiences contribute to students' skill enhancement, career readiness, and overall educational outcomes. Through these interviews, the research highlights the following key themes: personalized learning environments, self-advocacy, ownership of learning, goal setting, skill assessment and individualized guidance and support.

4.2 Personalized learning environments

In Grade 10, Julia had a plan to attend university, become a nurse and graduate with a bachelor of science in nursing. She started to take these courses. After shadowing a nurse for 4 days, Julia was at a loss for words and did not enjoy her experience at all and decided to take a cooperative education credit in her grade 11 school year to help her find something she thought she may enjoy.

> Becoming a nurse was always my plan. This co-op learning experience in teaching has allowed me to have a better understanding of my strengths and my interests. I learned during this experience that I have more patience than I thought I had. I loved my teaching placement. My plan is now to attend university to become a teacher. I think I would have really hated my life. (Julia, Interview Transcript)

Julia went on to explain that teaching had also always interested her , but she didn't think she was cut out for it. She didn't want to go to university and take something she didn't think she was going to have the patience to do. To her surprise, the hospital scene and nursing was not really what she had expected. She was extremely grateful for having taken the time to fit a co-op credit into her schedule to line up the credits she would need to graduate from high school to attend university and apply for a Bachelor of Education degree. Cooperative work placements allow students to explore potential career paths by gaining firsthand experience in a professional setting that becomes personal to the individual learner. According to Smith (2021), this type of exposure helps students make informed decisions about their future career goals and areas of interest.

Julia also shared that she learned how to apply her strengths and her weaknesses and use them in real life situations. She shared that one of her strengths, the capacity to resolve problems, was put to the test daily when planning lessons and organizing story time activities with

elementary students. She quickly learned to identify what went wrong, and consider alternative approaches to bring students to better understanding the meaning of the lesson.

Woods (1994) observed that students being forced to take major responsibility for their own learning go through many of the steps psychologists associate with trauma and grief: shock, denial, strong emotions, resistance and withdrawal, struggle and exploration, return of confidence, integration and success.

In the real world, making mistakes is inevitable. Learning how to navigate and learn from mistakes in a supportive educational environment prepares students for the challenges they will face in their future careers and personal lives. Student-centered instruction is a broad teaching approach that includes substituting active learning in specific environments for lectures which hold students responsible for their learning (Felder & Brent, 1996). Finally, Julia explained that although she had always loved the idea of a specific career path, she was extremely happy to have explored this option and realized that she did not love this work environment before pursuing her studies in this field.

Joey, a Grade 11 student, unsure of his future, decided to take a co-op class to help him gain experience in the work field and better prepare for his future. After working with a physical education teacher, because he loves sports and children, he quickly learned that organizing lessons and working with students was not for him. Although he loved sports and children, he didn't realize how much work it was to teach and plan for them. Working with his teacher, reflecting on what he did well, planning classes and exploring the things he did and did not enjoy, Joey was able to learn just as much from this experience than from one he loved. He shared that this placement made him use his critical thinking skills daily, bounce back from setbacks and helped him realize the importance of choosing a second placement that better

explored his personal interests and his talents to ensure a positive work environment that he would truly enjoy attending daily. Furthermore, Joey realized that he was content teaching physical education, but he knew that he was not exploring the things he really loved to do. Joey will continue high school in the options and opportunities (02) program in grade 12 where he will have the opportunity to explore two more work placements in his other fields of interests, welding and construction. He also noted that it was important for him to do the next two placements, because he really wanted to know how he felt in each work environment and if he preferred one skill set over the other. Joey concluded with how thankful he was to have had the opportunity to experience this first work placement, but yet also highlighted the value of further exploration and the importance of finding something he enjoyed before actually applying to a post-secondary program that simply seemed interesting.

> I don't really feel that I have a better understanding of my strengths and my weaknesses yet. I am still trying to figure out my strengths and my professional interests, but I'd rather learn about a job now rather than like the idea of the career without actually having the option to see what it's all about and if it actually interests me. (Joey, Interview Transcript)

Learning occurs for students through self-directed discovery with their peers and with the guidance of adults. Learning happens at many times and in many places, and "all learning experiences, whether highly structured or exploratory and experiential, are valued, encouraged, and integrated into the learner's journey (Smith, 2021).

4.3 Self-Advocacy

According to Felder & Brent (1996), students who have a say in their own personal learning experiences and decision making, develop essential skills such as self-advocacy.

Lucy, interested in becoming a pediatrician from a young age, was very unsure of what classes to take throughout high school to pursue this career after Grade 12. In Grade 10, she took the required credits that were suggested to her, but in Grade 11 she started to question the different pathways available to her, workload options and course requirements for different programs that could lead to this career of interest. She listened to her peers, her guidance counselor and her teachers and was still torn as to whether or not she should take course requirements to enter a program that would lead her to be prepared to one day write the MCAT exams to become a doctor if she wished to. She wondered if she even wanted to be a doctor or if she just liked the sound of being a doctor. All Lucy really was certain of was that she wanted to try a profession in a hospital setting that would be helping others. After making the decision to take a co-op class, fearful it would not allow her to complete all science credits she required in high school, Lucy decided that she needed to learn to follow a path that was guided by her own decisions and not those of her friends and the teachers around her. Her co-op placement allowed her to complete work placement hours in a hospital as an LPN (Licensed Practical Nurse) as well as with a RN (registered nurse) exploring the different aspects of each profession:

> I was always against going to community college. It's not a university. But for me as a
> student who always needs a little extra push, I realized I'm going to take two years at
> NSCC for the LPN (Licensed Practical Nurse) program, followed by two years of
> nursing at STFX and that together is going to give me a bachelor of science in nursing,
> giving me that extra little hand I need to help me do exactly what I want to achieve. (
> Lucy, Interview Transcript)

Lucy shared that her co-op experience taught her to consider different post-secondary routes to achieve what was best for her learning strategies. Furthermore, this placement helped Lucy

understand the importance of learning independently and figuring out what was going to be good

for her and helped her understand why she needed to make these decisions for her and not to

follow those around her. She was very proud of these decisions and these discoveries: "I can

now say that I made this decision, not my teachers, not my friends, but me." (Lucy)

Rather than simply apply to University for a Bachelor of Nursing, and then decide to

pursue further studies as a pediatrician,while working with healthcare professionals, Lucy

learned that there were different pathways available to her that lead to the same finishing point

that could help her build the confidence and the skills necessary to then apply into the program

of her choice, taking the course route she felt most confident about, not closing any doors,

limiting her choices or depending on others to guide her future decisions. She was also very

proud to report that she confidently signed up for the physics 11 credit that she was hesitant to

take, but quickly realized that her options were plentiful and that this course would help her

further decide (for herself) if she preferred the idea of starting in the Bachelor of Nursing

program or the Practical Nursing Program after grade 12. After her cooperative education

placement, she chose to open many doors, ensuring she had every high school requirement to

apply for any of the options she had considered, allowing her to consider several pathways if she

one day chooses to write her MCATS. Through her placement, Lucy was able to take control of

her learning and career trajectories, ensuring that she was able to speak up for herself and make

informed decisions regarding her own learning styles and make independent decisions that align

with her personal goals and learning preferences.

Likewise, Violet and Henry also highlighted a proactive approach to personal growth and

career planning through their co-op placement experiences. By immersing themselves in

real-world work, they have gained valuable insights into their own preferences and dislikes,

which has been instrumental in shaping their academic goals. This self-awareness led Violet to understand the necessity of completing specific courses before graduation, reinforcing the importance of these steps to accomplish the goal of entering a welding program. Through a reflective process while doing a placement in the mental health field, Henry took control of his interests, continued working in the same field, but changed his work environment to explore urban and rural communities within this career path, illustrating a strong sense of self-advocacy and commitment to the field of study. And through exploration of the workforce, Henry was able to realize for himself the importance of his French language skills when he was able to communicate with patients, allowing them to express themselves in their first language and to be properly understood. It was eye opening to see the student's reaction when they explained that the patient would not have this option if they cannot find enough workers to speak French.

4.4 Ownership of learning

Extremely unsure of his future plans, as an 02 student, Sam had the opportunity to put his communication strengths and his love for continuous learning to work during three 80 hour placements in Grade 11 and Grade 12. These cooperative placements included theater, aviation and engineering. Although these placements were all very different, Sam shared his point of view, emphasizing that each cooperative placement he completed helped him reflect and adjust the work site opportunities according to his personal learning interests, gaining knowledge from each hands-on experience. He shared that it is important to explore different work environments and learn the value of making mistakes, because it also teaches one the importance of troubleshooting practices. Sam also shared that students learn a lot of things at school and he feels like one is to always be right and avoid making mistakes. He shared a quote that an

employer told him on his work placement that he will continue to reference in life. He said: "Every mistake is an opportunity to learn something new." (Sam, Interview Script)

Robert Kiyosaki, a renowned author and businessman, makes reference to this quote and shares his perspective in his book *Rich Dad, Poor Dad* published in 1997. The quote emphasizes that mistakes provide opportunities for learning and growth and it reframes mistakes as valuable experiences that offer new insights and lessons to the individual. Such learning opportunities for students on work placements helps them view mistakes as valuable stepping stones and helps them adopt a curious and reflective mindset, embracing mistakes as opportunities for personal and professional growth which helps them take risks rather than being scared of making mistakes.

Sam also shared that having the opportunity to adjust his co-op placements more than once helped him reach his third and final placement in engineering that he has confidently chosen to pursue for his post secondary studies.

> The puzzles and problems I was forced to solve during
> these placements, forced me to learn new strategies and
> new concepts that I will also learn about and know how
> to apply next year when I'm in university. (Sam, Interview Script)

4.5 Goal setting

The findings reported in this study indicated that setting individual goals that aligned with their interests helped each participant better understand their strengths and their areas for improvement. Throughout the interview process, all participants shared that taking part in a cooperative education course helped them to set short term and long term goals helping them better understand their personal academic growth and their individual needs for their career aspirations. Such goals helped them make individual decisions and create action plans to better

communicate with their employers, reflect on their experiences and the goals they had set for themselves. Furthermore, participants shared that with a clear sense of skills to achieve and knowledge they needed to develop throughout their experiences, they were able to take ownership of their learning and develop critical thinking, problem-solving skills, and take risks independently.

Julia set goals to further develop her daily story time routine with students and changed her teaching strategies to better interest all students from start to finish during her "Madame Raconte" story sessions. Joey realized that he had to directly interact with students during his activities to keep them engaged and ensure good communication skills and practice lots of patience. He shared that he was very fortunate to have an experienced mentor teaching him how to organize his different classes. Furthermore, Lucy set goals seeking feedback from her supervisors to further understand the demands of practical nursing vs. the tasks of a registered nurse, seeking regular clarification to decipher the careers. Henry chose to explore both urban and rural work settings to further understand his interests and the pace of each career, while Violet set out to know what she likes and does not like and concluded that she knows what courses she will require to enter her program of choice through exploration. Finally, unsure of his interests and his career interests, within the 02 program and three different cooperative work placements, Sam set out to learn new concepts and complete further training course certifications such as Nova Scotia Best, First Aid and WHMIS. He concluded that he felt he had a better understanding of his strengths and his professional interests and found confidence applying to a post-secondary program that he was excited to pursue and didn't fear making mistakes, but learning from them.

4.6 Skill Assessment

On site work placements gave students the opportunity to help assess their skills and competencies. Sam shared that he struggled to say no and often took on too much work when he was asked. He knew that he needed to work on time management and problem-solving when given tasks at work. His cooperative placement allowed him to apply his academic abilities, technical skills and led him to have a better understanding of the importance of teamwork when breaking down large tasks and using his strong communication skills to complete given projects, step by step.

During their work placements in a school setting, Julia and Joey both similarly shared that they were able to participate in active lessons with their assigned teachers and learned the importance of adaptability and patience. This helped them adapt to challenging situations with students and parents, both realizing they had more patience than they thought achieving their daily goals at work, forcing them to think outside the box and apply their problem solving skills.

Henry was able to find value in being a francophone student, putting his bilingual skills to work when communicating with patients and allowing them to express themselves comfortably in their first language. He felt proud to do so while experiencing work that interested him.

4.7 Individualized Guidance and Support

Akinmoyewa (2003) concluded that self-learning consisted of the following characteristics: provision for response; feedback and testing, so that students could learn either without teacher's intervention or with a minimum of teacher guidance. For students like Lucy, uncertain of her career path or course route in school, personalized guidance and support helped her navigate the career exploration process to better understand her post-secondary options. In

particular, this placement provided not only mentorship, clarity and resources to address Lucy's questions, the work placement helped her navigate the career exploration process and opened her eyes to multiple careers that existed within the hospital. Throughout her placement and the co-op credit, Lucy gained confidence in her decisions, explored her interests, set goals for herself and asked many questions to make informed decisions about her education and future career paths. Further research demonstrated that students' attitudes toward specific subjects with exposure to hands- on experiences, direction of change may be related to the quality of the exposure, the learning environment, and teaching methods (Newble, 1998; Cracker 2006) and Aiyelaagbe (2003) reported a more positive attitude of students after exposing them to self learning strategies. Similar results were obtained in the study conducted by Mattern and Schau (2004) after exposing students to a self learning device.

The findings also concluded that participants showed ownership of learning and were engaged in the process of self-discovery, identifying their interests and areas for improvement. Throughout the interviews, Sam and Violet reflected a deep level of personal investment in their learning process, not only on the work site, but also in relation to education they required to pursue careers after high school. By recognizing the need to complete certain courses to meet their career goals, they learned the importance of managing their own educational path. This sense of ownership was evident in their actions to align their academic choices with their professional aspirations, not only absorbing information but Sam used it to shape his future after three placements, knowing exactly what career he wanted to pursue.

 4.8 Chapter Summary

Such insights offer a deeper understanding of the value and implications of cooperative education within academic context for students. Leslie K. Hickcox (2002), assistant professor at Northeastern Illinois University, in Chicago, concludes that by experiencing the expectations and demands of a professional setting, students become more prepared for the transition from school to the working world. Through this interview feedback, it was found that experiential learning programs, courses, and tasks create new opportunities for faculty and students to interact. Furthermore, each individual was able to benefit from their reflections on an individual experience that led to one-on-one consulting, visits to off-campus sites to observe student work, and troubleshooting. In addition, these individual discussions allow students to deal with their reactions to the experience, student anxiety over learning in new ways, manage their doubts and troubleshoot regarding other personal concerns. Finally, the nature of such programs and hands-on placements not only help bring clarity to teachers and students about their interests and their talents, but furthermore help both the teacher and the student know what is required to personalize teaching and further their personal educational goals (Hickcox, 2002).

In conclusion, the interviews conducted with the francophone students who participated in cooperative education work placements reveal profound insights into their educational experiences. The research underscores three pivotal themes: personalized learning environments, self-advocacy, and ownership of learning. These findings illustrate how cooperative education not only enhances students' practical skills and career readiness but also fosters a deeper engagement with their own learning processes and an understanding for their bilingual capabilities. Personalized learning environments, as reported by the students, facilitated tailored educational experiences that were highly relevant to their interests and helped each student experience the work field and explore their career goals. The emphasis on self-advocacy

empowered students to take control of their learning journeys, while ownership of learning

encouraged participants to take on a proactive approach to personal and professional

development. Together, these themes highlight the transformative potential of cooperative

education placements in bridging the gap between academic theory and real-world practice,

allowing for a more holistic and effective educational experience for each student, that allows

each individual to learn and explore their individual skill sets and their unique talents.

V

Conclusion : The Whole Student

5.1 Chapter overview

This chapter offers a summary of the thesis' findings and discusses the themes that were revealed from this study. It concludes with a few outstanding questions and highlights the potential for additional exploration beyond the scope of the current research.

5.2 Summary of findings

This exploratory, ethnographic thesis has examined the practice of hands-on learning cooperative placements for high school students, offering discussions about the content, practices, pathways and structure of this activity. In doing so, it has addressed the original guiding questions and goals of the research project (Chapter 1, section 1.6), providing student perspectives through the use of their experiences, their journals and their professional portfolios. The findings reported in this thesis demonstrate that those who have had the opportunity to explore hands-on cooperative learning environments concluded that such experiences, good and bad, helped each individual learn about themselves, their interests and their personal goals. The opportunity to individualize learning through co-op placements involved a variety of unique and personalized practices for each learner. In addition, individual skills were guided by professionals, helping each learner better navigate their high school studies and to work towards personal growth and understanding regarding their individual pathway and post-secondary goals. This chapter summarizes the value of differentiated learning, highlighting the relevance of offering various types of learning environments for students. Although standard evaluation

results and essays should never be overlooked, giving students other ways to show their understanding of topics helps them take responsibility for their education, personalizing content delivery and giving students control over their individual needs and learning environment (Wolf, 2012).

Perhaps more than ever, today's schools need to produce lifelong learners who can adapt to a rapidly changing world. Keefe (2007) offers an idea that has been with us for decades: all students do not learn in the same way, nor do they all need precisely the same content.

While some students initially provided only brief responses during the interviews, they later demonstrated their achievements with impressive confidence through their individual professional portfolios they compiled from their co-op experiences which included multiple workplace certifications, photos, workplace evaluations and journals. When discussing their personal experiences, they were able to articulate their strengths and successes with a sense of pride. These narratives went beyond interview question answers, reflecting the significance of their experiences in ways that words alone might not fully capture. Their stories revealed a sense of success, personal confidence and self-efficacy, particularly as they shared how succeeding in a non-traditional educational setting represented a significant improvement compared to their traditional classroom experiences.

5.3 Methodological reflexions

In utilizing ethnography as a research method, my thesis produced a record of data that offered an overview of co-op placements and hands-on experiences for high school students. Through interviews and professional portfolios, it highlighted how each individual achieved

success by applying themselves in the workplace and successfully learning new skills outside of the classroom.

As stated elsewhere in the thesis, my previous involvement as a cooperative education teacher and the lead of the options and opportunities (02) program in my current school, was an asset both in my access to the field and in gathering field data. My presence within the school board and as a teacher in another CSAP school positioned me as a trustworthy person who would treat participants with patience and understanding. This also allowed me to quickly establish a comfortable rapport with participants and to easily understand their feedback, journals and workplace outings. The interview resulted in the richest field data, as the option to refer to their professional portfolios grounded them when they searched for concrete points to reference. Although it was the participants, who determined which parts of the portfolio were discussed and shared, there was a graceful quality to allowing students to guide me through their portfolios in their own way. This allowed our discussion to be both natural and ensured the participant guided the discussion sharing very personal and individualized aspects of what this cooperative experience and this document they had created meant for them as an individual.

While my approach left many aspects of cooperative placements unexplored, it was well-suited for investigating a variety of work placements and having students share their professional portfolios. Although we have only uncovered the tip of the iceberg, the findings we have noted compensates for what remains unknown. Those interviewed concluded that while the classroom is a valuable learning environment, it is far from the only one. To achieve differentiated learning and teach each individual at their fullest potential, we must recognize the importance of offering this course to all students. Participants shared that when given the opportunity some students thrive outside traditional classrooms and excel by learning through

problem-solving and making mistakes. Having one-on-one guidance to build workplace skills that is guided by others who offer these opportunities is a valuable opportunity many students will not experience if they don't take a Co-op credit.

5.4 Key findings and insights

This following section offers an analysis of the broader themes drawn out by the findings of this exploratory study. This study demonstrated that participants who completed their cooperative learning placements, were all happy to draw from their experiences, sharing their portfolio collection of certifications and documents that helped individuals reflect upon their experiences. After diving into this research, it turned out that these cooperative placements really do make a difference. The whole focus of this study was to see how hands-on experiences helped students understand their personal interests and prepare for the future, and the results were quite insightful.

Throughout this investigation, I realized that students really started to see the value of their skills in real-world settings. For instance, many realized just how important their French language skills were in the workplace, which was something they hadn't fully appreciated before. For the first time, students were able to speak from the heart and explain the value of being bilingual, explaining how their skills helped patients within a hospital setting or in workplace situations communicate their needs. Furthermore, students learned a lot about their own individual abilities —whether it was helping someone out on the job or navigating through challenges. It's clear that they figured out how to think on their feet, solve problems, and take risks.

One of the most interesting takeaways throughout this research was how much students learned from the cooperative experiences they did not enjoy. It turns out that even the less favorable placements offered valuable lessons that were just as significant as those they did enjoy. And when students found a career path that they were genuinely interested in, they became more motivated to take the necessary classes and plan their education around those interests.

In the end, the collected research showed that students not only became more aware of themselves—both as learners and as future professionals—but also felt more confident making decisions about their future course selections, their post secondary choices and their career aspirations. All participants agreed that after completing a cooperative learning placement that they were better equipped as an individual to make informed choices about what courses they required to graduate. It's pretty amazing to see how these cooperative placements shaped their paths in such meaningful ways!

5.5 Future research: Looking for growth

Ethnographic research highlights how the researcher's perspective influences the study and its results (Geertz, 1973). Throughout the past year, as my research unfolded, my understanding of cooperative learning placements and hands-on learning experiences evolved significantly, forming a strong commitment to explore these areas of education more deeply.

This study examined cooperative learning pathways and the use of portfolios which have proven to be crucial in helping students connect their academic experiences with real-world applications. Throughout the investigation, it became increasingly clear that portfolios served as

a vital tool for students to document and reflect on their skills, achievements, and growth over time.

Similarly, cooperative learning pathways provided invaluable opportunities for hands-on experiences, offering opportunities for students to apply their learning in practical settings and gain insights into their future career paths. Furthermore, the research confirmed that students who engaged in hands-on cooperative learning placements and created detailed portfolios had a better understanding of their strengths and their weaknesses, helping them as individuals explore a variety of career options that aligned with their skills and interests. These placements helped students discover what they truly enjoyed doing, the types of environments they thrived in and helped students gain a clearer understanding of their career aspirations. Rather than choosing a post-secondary program based solely on an initial interest in a particular career, these students can explore their curiosity more deeply and make more informed decisions about their future paths.

There are several intriguing avenues for future research that could build on the insights from this study. One area to explore could be the long-term impact of cooperative learning placements. While this study provides valuable evidence of how these placements help students understand their interests and prepare for future education, tracking these students over a longer period of time could offer deeper insights into how these experiences influence their career choices.

Another important area for future research is the exploration of school schedules. This investigation would be in regards to restructuring the school day to allow all students to complete a cooperative placement, including those who fear missing classes during the school day, to not

fall behind in their class work. Understanding how different populations offer such experiences

to students and benefit from these placements could help design more inclusive and equitable

programs for all high school students in Nova Scotia. For instance, it would be worth

investigating if the double period could be placed at the end of the school day after lunch,

allowing students to participate in work placements weekly without missing other classes. This

change in schedule could offer all students the opportunity to take a Co-op 11 or 12 high school

credit without missing any other academic courses. This option would allow any student to

complete a cooperative work placement and explore their interests in different learning

environments while offering inclusive opportunities for all students.

5.6 Chapter Summary

This chapter provided a summary of the thesis's findings and has considered the

effectiveness of the ethnography as a research method. It has also offered a summary of the

broader themes revealed in these findings including goal setting, skill assessment and

individualized guidance and support. According to Coll et al. (2011), work-integrated learning

involves various pedagogies aimed at integrating knowledge. Evaluating a student's ability to

think analytically, critically, to problem solve and adapt in new hands-on situations, particularly

in a co-operative learning environment, values a student as a whole, helping them seek their

individual pathway in education, highlighting their personal development, individual growth,

interests and talents. After working with both types of nurses, Lucy was able to identify her

interests, identify the difference between both career paths and identify the requirements to

complete the program of her choice and her pathway options. Julia and Joey realized the integral

role of teacher mentors and a support team in a teaching setting. They learned the importance of

patience and how to take a lesson plan and adapt it to better suit a group of students to engage the

group, while Sam learned that each placement opportunity shaped him to better understand his personal needs and his interests. Prodigy's platform aligns with West Belden's goal of providing adaptive learning to every student, arguing that students deserve to go deeper in places where they're ready or perhaps revisit skills that are specific to them as areas of growth, allowing the opportunity for students to move at their own pace. Valuing a student as a whole involves considering an individual's education, well-being and personal development beyond just academic performance. According to Coll et al. (2011), personalized learning requires not only a shift in the design of schooling, but also to manage the learning needs of all students, which are not always available within a traditional school setting.

Finally, this chapter has outlined the potential avenues for further research, supporting Coll et al.'s claim that we may need to reconsider the design of the current school schedule to personalize learning needs and ensure that all students, even those who have 'heavy' workloads are able to complete a cooperative learning placement. Considering a mandatory cooperative education course in high school could be beneficial. In a rapidly evolving, technologically advanced world, providing students with hands-on work experience is an effective way to help them explore new career options and gain valuable insights into the workforce.

APPENDIX A
PARTICIPANT INFORMATION SHEET (3 PAGES)

MEMORIAL
UNIVERSITY

Research Project: Experiential learning and work placement impact for high school students:
The need for high school co-op placements

Researcher: Renée Samson, Faculty of Education, Memorial University of Newfoundland
Supervisor: Dr. Kirk D. Anderson, Faculty of Education, Memorial University of
Newfoundland

Thank you for your interest in participating in my research regarding experiential learning and
work placement impact for high school students within CSAP, French First Language Schools.

This is the informed consent process that indicates the research taking place and what your
involvement as a participant for this study will involve. It also describes your right to withdraw
from the study. In order to decide whether you wish to participate in this research study, please
please take time to read this carefully and do not hesitate to contact the researcher, Renée
Samson. If you have any further clarification questions about the study or require more
information before you consent. Please note: it is entirely up to you to decide whether to take
part in this research. If you choose not to take part in this research or if you decide to withdraw
from the research once it has started, there will be no negative consequences or impact on this
decision, now or in the future.

Introduction:
My name is Renée Samson and I am a graduate student at Memorial University. I am currently
completing a thesis as part of my Masters of Education in Educational Leadership at Memorial
University of Newfoundland. I am conducting research under the supervision of Dr. Kirk
Anderson.

Purpose of Study:
The purpose of this qualitative research study is to explore how student learners come to better
understand their personal interests as they guide themselves through high school and shed light
on the under-explored experiential learning process and benefits that exist for participants
choosing to take part in co-op learning placements.This will be accomplished by interviewing
participants who have completed work placements and documenting their experiences. Each
participant will be involved in an interview of approximately one hour in length. Each interview
will be scheduled and located at a time and place that is convenient for the participant and
conducive to confidentiality. Taking part in this research will greatly improve the participants'
understanding of the impact of co-op placements in high school.

To complete this research I will be working within rural Acadian, Francophone schools, to develop case studies by interviewing students that share their experiences regarding their co-op placements.

What it will mean for you
I want to interview you and talk about:
- Your co-op placement, your interests and the opportunities and challenges it presents.
- Your career goals and interests
- Your high school course selection process
- You are welcome to (but not obligated to) bring your Co-op portfolio with you to the interview to talk about the certificates you have earned and to reference any documents you have included in your portfolio which may help you describe your co-op experience while completing your placement.

The total time commitment for each participant would be an interview with the approximate duration of one hour. The interview will be recorded and transcribed, and a copy will be sent to you for your approval. Neither you nor your organization will be identified in the final thesis. I will provide the opportunity to share the overall findings of this research before it is submitted. Please note that this interview can be conducted virtually via Zoom or participants have the option to take part in a face-to-face interview.Please see the link to the Zoom privacy policy for further information: https://explore.zoom.us/en/privacy/.

Possible Benefits:
The researcher hopes to gain a deeper understanding of the importance of offering co-op placements to high school students in Nova Scotia. Furthermore, the researcher hopes to gain an understanding of the impact these placements have on individual's interests and course selection routes for youth in Nova Scotia's education system.

Possible Risks: There are no known physical, emotional, social or financial risks associated with this study. Participants are able to withdraw their participation from the interviews at any given time. If they choose to not answer any particular question, this is not an issue, they can skip ahead to the next question. There will be no repercussions.

Confidentiality:
The ethical duty of confidentiality includes safeguarding participants' identities. Whereas the participants for this research project have been selected from a small group of CSAP students it is possible that participants may become identifiable to other people on the basis of what they have said. Every attempt for confidentiality will be conducted for all participants. Furthermore, the researcher will omit details that would identify the participants and consent forms will be stored separately from the data collected, so that it will not be possible to associate a name with any given set of responses.

Anonymity: Anonymity refers to protecting participants' identifying characteristics, such as name or description of physical appearance. Every reasonable effort will be made to ensure your anonymity. You will not be identified in publications without your explicit permission.

Use, Access, Ownership and Storage of Data:
All data will be stored on a USB stick in a secure location. Only myself, the researcher and my supervisor will have access to the data. Data will be kept for a minimum of five years, as required by Memorial University's policy on Integrity and Scholarship Research.

Right to Withdrawal
Participation within this study is voluntary, and the participant may withdraw from the study for any reason, at any time without penalty. Participants who wish to end their participation during the interview session will have the option to have their data either a) destroyed or b) included in the study. Participants will receive their interview transcript to review and revise (by email) during a period of ten days and will have the option to remove their data from the study until that time. If the participant chooses to withdraw their data, this request must be sent by email to both the researcher (rcmsamson@mun.ca) and the supervisor (kirk.anderson@mun.ca).

Reporting and Sharing Results:
Data from this research project may be published. Upon completion, my thesis will be available at Memorial University's Queen Elizabeth II library, and can be accessed online at: http://collections.mun.ca/cdm/search/collection.theses. Data collected from this study will be reported using multiple formats, such as direct quotations or in an aggregated summarized form. Furthermore, both participants and the CSAP school board will receive a copy of the study results by email.

What happens next
If you would like to participate in this study, please complete the attached consent form and return it by email to rcmsamson@mun.ca If you have any other questions, please do not hesitate to contact either myself at rcmsamson@mun.ca or my supervisor Dr. Kirk Anderson kirk.anderson@mun.ca.

Thank you for your consideration,

Renée Samson

APPENDIX B
CONSENT FORM (2 PAGES)

Consent Form for Research Participation

Thank you for agreeing to participate in my research regarding experiential learning and co-op work placement impact for high school students in Nova Scotia. Please complete the form below to confirm your participation with this project.

Title: Experiential learning and work placement impact for high school students:
The need for high school Co-op placements

Your signature on this form means that:
- You have read the information about the research and you have been able to ask questions about this study.
- You agree to be audio-recorded and are satisfied with the answers to all your questions.
- You understand what the study is about and what you will be doing.
- You understand that you are free to withdraw participation in the study without having to give a reason, and that doing so will not affect you now or in the future.
- You understand that if you choose to end participation during data collection, any data collected from you up to that point will be retained by the researcher, unless you indicate otherwise.

By signing this form, you do not give up your legal rights and do not release the researchers from their professional responsibilities.

Your Signature Confirms:

☐ I have read what this study is about and understood the risks and benefits. I have had adequate time to think about this and had the opportunity to ask questions and my questions have been answered.

☐ I agree to participate in the research project understanding the risks and contributions of my participation, that my participation is voluntary, and that I may end my participation.

☐ A copy of this Informed Consent Form has been given to me for my records.

_____   _____
            Signature of Participant   Date

_____   _____
            Signature of Guardian   Date

Researcher's Signature:
I have explained this study to the best of my ability. I invited questions and gave answers. I
believe that the participant fully understands what is involved in being in the study, any potential
risks of the study and that he or she has freely chosen to be in the study.

_____   _____
Signature of Principal Investigator   Date

APPENDIX C
INTERVIEW GUIDE

Please note: Participants can skip any questions they do not wish to answer.

1.A.) How has your co-operative learning placement affected your readiness for the remainder of your high school and post-secondary education?

B.) Can you provide specific examples of how it has influenced your academic and career goals?

2. A.)Have you noticed a change in your understanding of your strengths and career interests after completing your work placement?

B.) If so, could you share some insights into how the placement contributed to this change?

3. Do you believe your co-operative learning experience has helped you identify the courses you'll need to graduate high school?

4. Can you describe any instances where your work placement influenced your academic choices?

5. A.) Can you think of a particular moment during your co-operative learning experience that had a significant impact on your academic and career decisions?

B.)If so, what changes did you observe in your path as a result of this placement?

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