EXPERIENTIAL HIGH SCHOOL CAREER EDUCATION:

RELATION TO SELF-EFFICACY AND MOTIVATION

A Thesis Submitted to the College of Graduate Studies and Research

In Partial Fulfilment of the Requirement

For a Master's Degree in Education

In the Department of School and Counselling Psychology

University of Saskatchewan

Saskatoon

By

Lisa Gaylor

October 2014

Permission to Use

In presenting this thesis in partial fulfillment of the requirements for a Postgraduate degree from the University of Saskatchewan, I agree that the libraries of this university may make it freely available for inspection. I further agree that permissions for copying of this thesis in a manner, in whole or in part, for scholarly purposes may be granted by the professor who supervised my thesis work, or in his absence, by the Dean of the College in which the work was done. It is understood that any copying, publication, or use of this thesis, or parts thereof, for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of Saskatchewan in any scholarly use that may be made of any material in my thesis.

Request for permission to copy or to make other use of materials in this thesis in whole or in part should be addressed to:

Department Head, Educational Psychology and Special Education,
College of Education, University of Saskatchewan
28 Campus Drive
Saskatoon, SK, S&N 0X1

ABSTRACT

Career education has become an integral part of high school programming in Canada (Gibbons, Borders, Wiles, Stephan & Davis, 2006). Research on school-based career interventions is on the rise throughout North America (Hiebert, 2010; Roest & Magnusson, 2005). The current study is intended to contribute to this growing area by examining the impact of an elective career education class offered in Saskatchewan public schools called Career and Work Exploration 30 (CWE30). CWE30 combines experiential classroom activities and work placements. Experiential learning has long been regarded as an effective way of increasing self-efficacy, as described in Social Cognitive Theory (SCT; e.g., Bandura, 1977), a factor shown to play a role in encouraging career exploration and confident career-related decision-making (e.g., Blustein, 1989). Another contributor to active career exploration is intrinsic motivation, described in Self-Determination Theory (SDT) as the innate desire to seek out knowledge and growth and to therefore engage in activities that foster this development (Deci & Ryan, 1985). Given the complex and relatively nascent nature of research in this area, the chosen methodology was a case study (Yin, 2014). Multiple types of data were collected. Fourteen grade 11 and 12 high school students from Saskatchewan completed the Career Decision-Making Self-Efficacy Scale - Short Form (CDMES-SF; Taylor & Betz, 1983) and a motivation questionnaire (adapted from Kerner et al., 2012) at the beginning and end of the second semester of the 2013-2014 school year. Two students and one teacher were interviewed. Further, the class curriculum, student attendance, blank copies of in-class activities, and homework that was assigned were collected. Results included significant differences in scores on the CDMSE-SF from pre to post testing and common themes on the qualitative measures such as frustration with assignments and placement time commitments; excitement about experiential learning; fears and uncertainties

related to career decision-making; and suggestions for improvements emerged. Course documents provided further evidence as to the implementation of the CWE30 curriculum and the inclusion of factors thought to promote intrinsic motivation and self-efficacy as described in SDT and SCT respectively. Implications within the current literature as well as for future research are discussed.

Acknowledgements

To my family and friends who have endured convoluted half-explanations of what I've been up to for the past year, here you have it. Thank for your support (even when you weren't quite sure what you were supporting ☺) and your patience. Thank you also to the members of the 2012 cohort of School and Counselling Psychology at the University of Saskatchewan. Jeanne, Sean, Dylan, and Jen: your camaraderie and encouragement in particular were instrumental in helping me maintain my sanity and motivation throughout this process.

I would especially like to express my appreciation for my ever supportive partner, Branden Bayda, who put up with the brunt of my academic frustration and was always ready to provide a reassuring hug, a sympathetic ear, or a fresh cup of tea.

I would also like to take this opportunity to thank my supervisor Dr. Jennifer Nicol for her thorough and insightful suggestions, her guidance, and her incredible speed in providing invaluable feedback. A huge thank you also to my committee members Dr. Stephanie Martin and Dr. Janet McVittie for the thought-provoking discussion, and a much appreciated thorough critique of this document.

My gratitude also to the University of Saskatchewan ethics board, specifically Beryl Radcliff who was a great help with last-minute modifications to our procedure. As well, thank you to the Saskatchewan public school ethics personnel who approved this study and who tolerated many panicked e-mails. Also, I extend my thanks to the Social Sciences and Humanities Research Council of Canada (SSHRC) for funding for this study.

Finally, and most importantly, I extend my deepest gratitude to the students and teacher who made this research possible. I literally could not have accomplished this without your generous sharing of time and perspective. I hope that you will find the content of this document to be an accurate and helpful portrayal of your experience with and the potential future of the Career and Work Exploration curriculum.

TABLE OF CONTENTS

List of Tables and Figures

CHAPTER 1
INTRODUCTION

Career planning has become a focal point of high school programming in Canada (Gibbons, Borders, Wiles, Stephan & Davis, 2006). Today, most secondary requirements include at least one mandatory school-to-career transition course, and there has been a surge in research associated with the outcomes of high school career interventions (see Whiston, Tai, Rahardja & Eder, 2011 for a review). Recent studies out of the United States have shown that factors such as the length of exposure and the medium of dissemination may play a role in influencing the ultimate impact of career education (Whiston et al., 2011). Similar research has been completed in Canada (e.g., Benjamin, 2009; Kerner, Fitzpatrick, Rozworska, & Hutman, 2012), but remains in its infancy (Hiebert, 2010; Roest & Magnusson, 2005). The current study contributes to this growing area of research.

Background and Significance

In a publication by Statistics Canada it was estimated that 50% of Canadian university students fail to finish their first degree within five years (Finnie, Mueller, Sweetman & Usher, 2010). However, it has been suggested that this is more often a result of students changing majors than them dropping out (Hiebert, 2010). It could be inferred from this trend that many students are under-informed about their field of interest when entering post-secondary training. Supporting this possibility is a study out of Southern Alberta, in which only 30-41% of junior high students surveyed reported that they would be comfortable approaching someone employed in their field of interest for occupational information (Bardick, Bernes, Magnusson & Witko, 2004). Students may therefore have only a cursory understanding of what a job entails, likely based on generic job descriptions that may not accurately reflect the diverse reality of a given career (e.g., an electrician may work in a variety of contexts, each with a different set of work

demands). The results of a study out of the U.S., in which grade nine students completed a comprehensive post-secondary planning questionnaire support these findings (Gibbons et al., 2006). Although 98% of the students polled reported having already made a post-secondary decision, and around 79% had known for over a year, just 60% had spoken with anyone currently employed in the area. Furthermore, only 40% had job shadowed and just 30% had volunteered in a related field. If students are uncomfortable initiating this kind of first-hand career exploration, it stands to reason that they could go on to pursue a career without full knowledge of what the work will entail. Notably, almost 40% of respondents in the second study indicated that hands-on career exposure and information would be the most helpful tools in finalizing their career decisions (Gibbons et al., 2006). Being that high school students are expected to make decisions (e.g., which high school classes to take) that may more or less determine their post-secondary options, it is crucial that they become engaged and comfortable with career exploration.

The call for more evaluative research in the area of career education, both within and outside of the school system, has resulted in the formation of the Canadian Research Working Group on Evidence-based Practice in Career Development (Hiebert, 2010). This initiative is a testament to the growing Canadian recognition of the importance of career education. The purpose of the current research was to contribute to this effort through an examination of the experiences of teachers and students involved in one of Saskatchewan's career-related elective courses: Career and Work Exploration 30. This course offers a unique blend of classroom instruction and work experience (Saskatchewan Learning, 2002). While not cited as foundational to the development of the curriculum, tenets related to Social Cognitive Theory (Bandura, 1977; 1986) and Deci and Ryan's (1985) Self-Determination Theory seemed embedded within CWE30, and they were therefore selected as the respective lenses through which the findings were

examined. Because of the relative dearth of *in vivo* studies in this area, a case study methodology was utilized and served to integrate the quantitative and qualitative data collected.

Key terms

The following terms are used throughout the document and are defined as follows:

Self-Determination Theory (SDT): The theory that humans are intrinsically motivated to pursue the expansion of their knowledge and skills, in this case related to career exploration, insofar as they correspond to their interests, values, and beliefs (Deci & Ryan, 2002). Though internal factors may impact these activities, environmental variables, specifically competency, relatedness, and performance, are the focus of SDT in terms of what affects such intrinsic drives.

Motivation: The drive to engage in an activity that can be either externally or internally sourced (Deci & Ryan, 1985). In this study, the focus is motivation related to career exploration.

Intrinsic Motivation: The innate human drive to pursue challenges and achievements in line with one's interests; the desire to grow, develop, and integrate knowledge and skills that are individually meaningful. Often conceptualized as a passion or vocation (Deci & Ryan, 2002).

Social Cognitive Theory SCT: A multifactor theory of the social and psychological underpinnings of human behaviour that emphasizes humans as the agent of their own learning and performance. It is explored within the scope of this research insofar as the importance of self-efficacy in encouraging career exploration and the roles of various factors, specifically modelling, competence, feedback, and emotional arousal, in encouraging its development.

Self-Efficacy: A person’s self-perception of their skill level or ability to perform a particular task or set of tasks (Bandura, 1986).

Career Decision-Making Self-Efficacy: Confidence related to the completion of tasks linked to career exploration and acquisition (Taylor & Betz, 1983). For example, confidence in one's ability to assess one’s own interests and skills or to choose between a number of careers or majors.

Thesis Organization

This document is organized in a standard thesis format. The first chapter contains the introduction and background and chapter two describes a review of the relevant literature. The third chapter is dedicated to the methodology of this study while the fourth and fifth contain findings and a discussion of the implications of the findings.

CHAPTER 2
LITERATURE REVIEW

Though the research on career education and exploration offers many potential paths of investigation, two factors were the main focus of this study: motivation and self-efficacy. It is suggested that classroom career exploration approaches that foster students' intrinsic motivation and self-efficacy can increase exploration success and engagement (e.g., Bembenutty & White, 2012; Ryan & Deci, 2009). In this chapter, these topics will be expanded on in their more general sense as well as in relation to the career education literature.

Motivation

Motivation in the context of the present study refers to the human drive to engage in a task or activity. It has been shown to be an underlying factor in the effectiveness of the majority of learning and teaching experiences (Deci & Ryan, 2012; Ryan & Deci, 2009). Predictably, this has resulted in a number of theories emerging to explain the psychological underpinnings of motivation, with a particular focus on how it can be increased. The current study was based on Self-Determination Theory, a motivation model proposed by Deci and Ryan (1985).

Self-Determination Theory

The development of Deci and Ryan's Self-Determination Theory (SDT, 2012) was in part a reaction to an assumption, popular among social learning theorists at the time, that human behaviour was essentially solely moulded by social context. Inherent in this assumption was the idea that humans were basically at the whims of their environment in terms of developing interests and pursuing learning goals. On the contrary, Deci and Ryan (1985) proposed in SDT that humans are self-motivated, active agents in their learning. Further, they believed that people were inherently drawn to the development that takes place through the process of integrating multiple knowledge sources. That is, that people can be intrinsically driven to pursue the

acquisition and development of knowledge rather than being limited to learning only what they are naturally exposed to. When people are driven to engage in certain tasks or behaviours by the enjoyment that they get out of it, this action is considered within SDT to be intrinsically motivated. People may refer to these activities as passions or hobbies, but essentially they include anything that a person does because they are motivated to by the joy of the act itself. However, it is noted that while these tendencies are intrinsic aspects of human nature, proper environmental input is required to encourage the appropriate channelling of these urges as well as their perpetuation (Deci, 2004).

Given that social and personal factors play an important role in the development of intrinsic motivation, it is not assumed that intrinsic motivation is always present in learning contexts. Relevant to this topic is the fact that SDT originated as a meta-theory overarching and combining the tenets of *Cognitive Evaluation Theory, Organismic Integration Theory, Causality Orientations Theory,* and *Basic Needs Theory* (Ryan & Deci 2002). Within these sub-theories, it is acknowledged that personality may play a role in motivation style and that people can be extrinsically motivated to learn. The four forms of extrinsic regulation described in SDT are labelled integrated, identified, introjected, and external. *Integrated* regulation occurs when a person is motivated by the task or behaviour aligning with their beliefs or values; *identified* regulation is the completion of something based on a personal judgement of importance; *introjected* regulation is based on negative internalizations such as guilt, a desire for approval, or shame; and *external* regulation is based entirely on the presence of a reward or punishment. Integrated regulation is thought to be the most facilitative to learning, aside from intrinsic motivation, while external regulation is thought to be the most detrimental. These variations aside, on the whole, extrinsic motivation has been found in experimental contexts to be inferior

to intrinsic motivation in terms of encouraging thorough processing and retention of knowledge (e.g., Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). Thus, the fostering of intrinsic motivation in academic contexts, and, more specifically, the career education classroom, was a focal point of this research.

Deci and Ryan (2012) proposed three experiential factors that appeared to encourage the development of intrinsic motivation: competence, autonomy, and relatedness. *Competence* refers to the belief one has about whether they are good at a certain task or behaviour. *Autonomy* is conceptualized as the perception of choice, or being able to decide between given tasks or behaviours. Finally, *relatedness* is defined as the feeling that one belongs or is cared about within an interpersonal setting. A student perceiving their teacher as cold and aloof versus warm and caring in regards to the student's achievement may be an example of how relatedness can be evoked. Deci and Ryan proposed that helping people to meet these needs would encourage the development of intrinsic motivation and, therefore, enhance learning.

Self-Determination Theory in Academic Contexts

It is well known that many high school students struggle to maintain motivation in their academic pursuits. Procrastination is common, and most students openly lack interest in at least one mandatory subject. Intrinsic motivation in this context would likely be considered the exception rather than the rule. Perhaps it is for this reason that much of the research associated with SDT has focused on classroom learning. Ryan and Deci (2009) criticized modern North American schools as places where evaluation and control have overtaken the academic landscape. They suggested that a focus on teacher accountability for student grade outcomes and standardization of teaching and testing processes led to classrooms where sustaining an image of success was prioritized over actual learning. The argument was that intrinsic motivation was

reduced in classrooms that limit student autonomy (i.e., meaningful choices as to how they demonstrate knowledge) and opportunities to experience competence (i.e., only through strong test performance), and relatedness was decreased because students felt pressured to perform in a particular way without regard for their opinions or proficiencies.

Ryan and Deci's (2009) description of a controlling versus autonomy-supportive or competency informational classroom is the most relevant aspect of the observed shift in educational priorities that is explained above. A controlling classroom is described as one in which the teacher maintains order through the use of rewards, criticism, directive statements (e.g., use of "should" or "have to" phrases), and evaluation. Control-focused teachers are also accused of offering answers before students have had a chance to figure out problems for themselves. These practices are thought to restrict student autonomy as well as competency; students may feel that they have no alternatives and that their opinions are not valued. They also typically receive little in the way of formative feedback and are offered minimal options for proving their abilities. The supportive or informational classroom was explained by Ryan and Deci (2009) as one in which student input is valued, meaningful choices regarding assessment are offered, time is provided in class to work through assignments, assistance is given only when clearly necessary, and group work is plentiful. Essentially, the classroom becomes a place in which students can acquire valuable and constructive feedback on their skill levels and how they can improve them. It has been found that classrooms that are ranked as more autonomy-supportive in accordance with these characteristics tend to produce students who report themselves as being more intrinsically motivated in their work.

As Reeve (2002) pointed out, there was a long-standing tradition of teachers being trained to manage their classrooms by successfully subduing disruptive students rather than supporting

class engagement. Though this view seems to be shifting (Deci & Ryan, 2009), there remains a prevalent societal view of controlling teachers, as defined by Ryan and Deci (2009), as more competent. Further, Reeve (2002) noted the assumption that student motivation is a characteristic that cannot be altered. This serves to dissuade teachers from trying to engage seemingly unmotivated students. Thus, it appears to be a failing of society and the educational system more broadly rather than the teachers that the controlling classroom is a much more common experience for secondary students, regardless of the class' subject matter.

More specific to career education, in some instances, extrinsically motivating factors are built into the curriculum itself. For example, one researcher in British Columbia found that the post-secondary options being encouraged in the career education classroom were related to the socioeconomic status (SES) of the students (Benjamin, 2009). Schools in poorer neighbourhoods tended to focus their classes on setting up trade apprenticeships, resume building, and interviewing skills while the higher SES schools offered more university-oriented information. It was concluded that this trend might come from the perception of parents and administrators that students were destined for different post-secondary pathways depending on their background. Thus, students were not being presented with what were judged by others to be unsuitable options. One guidance counsellor at a higher SES school when interviewed as a part of the study said, "If it's not university, it's college. It's something. I mean, this community has high expectations of their kids to go to higher education" (Benjamin, 2009, p. 148). This suggests that there is likely to be external pressure playing a role in some students' post-secondary decision-making. In a longitudinal, qualitative study by Usinger and Smith (2010), a strong connection was found between intrinsic exploration motivation and self-concept. Students who described themselves as being controlled or driven by others' (e.g., parents) perceptions and expectations

rather than their own were found to be less self-motivated in their career exploration. Thus, it seems plausible that the apparently extrinsic nature of the career education being provided by the schools in the Benjamin (2009) study would serve to decrease students' enthusiasm to explore their post-secondary options.

Related research, as well as the model for the present study, was conducted by Kerner, Fitzpatrick, Rozworska, and Hutman (2012). It consisted of the development and subsequent evaluation of the effectiveness of a working group developed by the authors and designed to encourage student motivation in career exploration. This 10-session intervention was explicitly based on SDT, the authors stating, "Individuals autonomously engage in activities when they feel a personal connection to their behaviour" (p. 143). It was predicted that if students feel that they are seeking out post-secondary information because it is expected of them, or for class credit, rather than for their own reasons, they are unlikely to engage in the task with enthusiasm. The researchers set out to increase student engagement by designing a ten-session, weekly program that they anticipated would foster the SDT-emphasized feelings of autonomy, competence, and relatedness. In the first two sessions, students became familiar with one another and engaged in tasks such as formulating a group contract, brainstorming tasks, and sharing stories. The third session was dedicated to career exploration and the fourth to a hands-on activity, requested by the students, in which students took on job roles (e.g., supervisor, labourer) and that was designed to increase self-awareness. In the fifth session, the fourth session activity was completed again, but without predetermined roles, and students reflected on the differences in the two experiences. In session six, the students were given a list of the intervention's objectives and evaluated how well they had been met so far. Sessions seven and eight focused on increasing self-knowledge, identifying personal strengths, and risk factors that could act as obstacles in

successful career exploration (e.g., negative messages from others). Session nine was dedicated to the creation of a profile sheet compiling all of the strength, interest, and characteristic information that had been collected in the previous sessions, as well as the completion of a value inventory. Finally, in session ten students reflected on the intervention as a whole. Viewing the intervention in its entirety, themes of valuing student input and activities supporting the development of group cohesion were prevalent.

Kerner and her colleagues' study focused specifically on the changes in motivation experienced by one participant, Bryan, who was chosen because his motivation was observed to be most improved by the intervention. The researchers triangulated information from videos, questionnaires, observations, interviews, and artefacts (e.g., drawings) in exploring the themes that surfaced for the students involved. The findings were highly supportive of the influence of the three SDT pillars in increasing intrinsic motivation. Bryan's increasing sense of relatedness via group work, positive facilitator and group feedback, and sharing appeared to lead him to feel more competent and autonomous. The completion of structured activities also contributed to these increases. Autonomy was further facilitated by allowing students to help develop the activities completed during the sessions and giving them the opportunity to provide feedback on the sessions. Bryan's motivation seemed to flourish under these conditions, as evidenced by his responses to questionnaires and interviews. On the whole, this study supported the importance of the SDT principles insofar as increasing intrinsic motivation and career exploration enthusiasm as well as offering a practical model of a case study methodology based upon which the current study was developed.

Relevance to the Current Research

As pointed out by Hiebert (2010), today's rapidly changing job market is a reality that

makes it unlikely that students will end up in the career that they plan for in high school. Thus, it is paramount that instead of pressuring students to make a particular career decision that career educators focus on encouraging exploration. This assertion is in line with the research summarized above, which essentially states that if students lack intrinsic motivation to explore their career interests improvements in skills related to job exploration and acquisition will not typically occur. Given these findings, it appears that facilitating the development of intrinsic motivation to explore should be a high priority in career education. Further, in spite of the apparently strong rationale for conducting studies on motivation, authors in this area lament a comparative lack of such research (e.g., Duchesne, Mercie, & Ratelle, 2012). The Kerner et al. (2012) study in particular offered strong theoretical and methodological support for the present study. On the whole, taking into consideration the preceding research, the decision was made to examine in the current study the ways in which students are, or are not, motivated to pursue career exploration in the CWE30 classroom.

Social Cognitive Theory

Social Cognitive Theory (SCT) was described by Bandura (2012b) as having been, like SDT, a product of resistance to behaviourist-infused social theories that assumed human nature to be mostly malleable to environmental exposure. Though Deci and Ryan (1983) criticized SCT as placing too much emphasis on external positive reinforcement as opposed to intrinsic motivation, Bandura (1986) described SCT as "a model of triadic reciprocality [sic] in which behaviour, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other" (p. 18). More simply, the roles of social context and other environmental variables were not seen as having to stand in opposition to that of individual agency in terms of affecting learning. Thus, researchers working from the SCT framework

rejected the dualism between the influence of environment and human autonomy. In fact, Social Cognitive Theory was initially referred to as Social Learning Theory, with the word *cognitive* later replacing the word *learning* to emphasize that the focus of the theory was the interaction between human motivation and social structure; a fact that distinguished SCT from the more passive, environment-driven learning models that were popular at the time (Bandura, 2012b). Emphasis in SCT is placed on two interrelated concepts thought to mediate the majority of learning experiences: self-efficacy and social modelling. Most research that has been conducted in relation to the SCT model has focused on these two mechanisms, showing strong support for their impact on learning (See Pajares & Urdan, 2006). It is therefore anticipated that they play an equally important role in the career education classroom.

Self-Efficacy

Self-efficacy refers to a person's confidence that they are able to perform a given task or behaviour. It is differentiated from self-esteem, a similar concept, in that self-esteem is defined as a holistic evaluation of self-concept, or self worth, while self-efficacy is an evaluation of one's ability to complete a specific task (Betz, 2001). There is a connection between the two, in that a change in one can affect the other, but they are not synonymous. The role of self-efficacy in motivating behaviour is expressed by Bandura (1997) as being the source of the expectation that the outcome of engaging in a given act will be good. That is, that people want to perform well and the confidence in one’s abilities encourages repetition of the activity.

Bandura (2012a) cited four sources of self-efficacy information: 1) performance or experience; 2) vicarious learning or modelling; 3) verbal persuasion such as encouragement; and 4) emotional and/or physical response to the given task. The first of these sources is relatively straight forward, in that self-efficacy can be improved or reduced by simply successfully or

unsuccessfully performing a task. The second influence on self-efficacy, which will be expanded on below, is modelling, or seeing someone else succeed or fail a task or behaviour. Verbal encouragement or dissuasion is the third way self-efficacy can be affected. In this regard, Bandura (1986) also described feedback types very similar to Deci and Ryan's (1985) description of the evaluation-style in controlling versus informative classrooms. Bandura called the controlling style of feedback a competency-contingent incentive. That is, a reward solely provided when performance is satisfactory as opposed to offering the person insight into how their performance could be improved; the latter of which is thought to improve self-efficacy. Changes in emotional arousal, or the interpretation thereof, when engaging in a behaviour or changes in physical fitness are examples of what is said to impact the fourth source of self-efficacy information.

The information attained from such sources is theorised to manifest in three types of behavioural indicators: approach versus avoidance behaviours, domain performance, and task persistence, particularly in the face of obstacles (Bandura, 1977). These three behavioural indicators are intertwined. For instance, *approach* behaviours are thought to be related to high self-efficacy, and essentially consist of engaging in the task, or making choices such that completion of the given task is necessary, even in the face of obstacles (i.e., task persistence). This exposure generally results in improvement of the skill (i.e., increased performance in the given domain). Thus, theoretically the combination of self-efficacy and performance become a sort of self-perpetuating system of positive reinforcement and practice. On the opposite end of this spectrum are *avoidance* behaviours. As the name suggests, this entails avoiding situations in which performance of the task, skill, or behaviour is required. Further, persons engaging in avoidance behaviours would naturally be more likely to give up on the given task if met with

difficulty. Low self-efficacy is said to correlate with these behaviours. It logically follows that if an individual is worried that they are not good at something, they are more likely to avoid doing it or that they will be quick to give up if the task proves difficult. Of course, this results in less practice and consistently low levels of performance on the given task.

Much empirical evidence has been collected over the years supporting the important role that self-efficacy plays in learning. Meta-analyses have shown it to play a mediating role in the relationship between ability and performance (e.g., Lent, Brown, & Hackett, 2004), while individual studies have shown the value of self-efficacy in a variety of specific domains. For example, Hsieh and Schallert (2008) examined the relationship between self-efficacy and university students' achievement in foreign language classes. Of a number of factors measured (e.g., ability beliefs, locus of causality), self-efficacy scores were found to be the strongest predictors of subsequent test scores. The authors suggested that self-efficacy in this context likely took the form of students' confidence that they could learn a foreign language. In line with the information provided above about SCT, students who were more confident in this ability would presumably go on to engage in behaviours (i.e., approach behaviours) that resulted in them more effectively learning the language (Bandura, 1977). A more recent study conducted by Bembenutty and White (2012) focused on the homework practices and final grades of 132 college students in relation to a number of factors. Self-efficacy was found to mediate the relationship between motivation and students' final grades. That is, motivation, which has already been shown to have strong ties to achievement and learning, was correlated with students' final grades, but this variance was explained in part by students' reported self-efficacy. More broadly, in a 1991 meta-analysis of 39 studies, Multon, Brown, and Lent concluded that there was strong evidence to suggest that self-efficacy plays a role in both academic achievement

and task persistence.

Of particular relevance to the current proposal is an experience-based program implemented by Betz and Schifano (2000). The motivation behind the intervention was to explore the gender disparity seen in employment rates of males and females in careers related to building, repair, and construction. Participants were women enrolled in college who expressed a moderate level of interest in careers related to building, repair, and construction, but who lacked confidence in their related skills. Both factors were measured using self-report questionnaires. Half of those who volunteered were assigned to the experimental group and partook in the intervention, which incorporated Bandura's four source model of self-efficacy information (see above; Bandura, 1977). In addition to meeting these four criteria, the intervention consisted of participants being given a variety of information and instruction in completing tasks of increasing difficulty (i.e., from identifying tools to rewiring a lamp) over the course of three sessions. This method is supported by previous research, as self-efficacy has been shown to be most effectively increased by ensuring success at first and then gradually increasing task difficulty (Bandura, 1986). Questionnaires designed to tap into self-efficacy in skills related to construction, building, and repair were completed before and two weeks after the program, and the results showed increases significant both in comparison to participants' pre-test scores and the scores of a control group. Betz and Schifano cited Bandura in suggesting that experiencing success in specific tasks could serve to increase a person's interest and engagement in behaviours within that domain more generally. Bandura and his colleagues had shown this, for instance, in their work with people with phobias, finding that overcoming their phobia translated into participants feeling more in control when dealing with other, unrelated fears (Bandura, Jeffery, & Gajdos, 1975). Thus, Betz and Schifano felt that an experience of success in acquiring few

traditionally male-oriented skills could encourage women to explore careers in numerous related areas. Along with the study providing a basis for a predicted relationship between the general classroom portion of CWE30 and self-efficacy, this finding supported the possibility that students' experiences in their work terms could serve to improve their general career decision-making self-efficacy and their job-specific self-efficacy.

Betz's career decision-making self-efficacy. Betz was inspired by Bandura's self-efficacy work in her exploration of a sub-concept called *career decision-making self-efficacy* (2001). This term was coined to refer specifically to a person's confidence in their ability to complete tasks required to make career related decisions. Some examples of such tasks are self-assessment of skills and abilities, exploring occupations online, or writing a resume. Bandura's aforementioned behavioural indicators (i.e., approach/avoidance, performance in given domain, and persistence) were foundational in Betz's theory that those who lacked career decision-making self-efficacy would likely be hindered in their career exploration. Betz's interest in career decision-making specifically came from her research-based conclusion that self-efficacy was a highly practical and easily alterable characteristic, comparatively, from a therapeutic perspective. She was further motivated by the fact that in a career exploration context, a lack of self-efficacy could entail missing out on suitable and enjoyable employment as a result of struggling to execute the necessary steps to acquire it. This could manifest itself in, for instance, an inability to set goals, quickly giving up upon discovering that a job requiring extra schooling, and/or avoidance of seeking out new career information altogether. To further investigate this possibility, Taylor and Betz (1983) developed the Career Decision-Making Self-Efficacy Scale (CDMSES), a tool designed to evaluate respondents' ability to self-assess their skills and abilities, set goals, gather career information, plan, and problem solve in relation to future career

choices.

Over the years, the CDMSES has been used as a measure in a number of research studies related to career exploration. One early example comes from Blustein (1989), who had a sample of 106 college students complete a number of questionnaires related to career exploration, including the CDMSES. He found that students' career decision-making self-efficacy, as measured by the CDMSES, was a stronger predictor of self-disclosed exploratory activity than age and goal stability (i.e., the extent to which participants reported being goal-directed in their academic activities). Studies have also been designed to evaluate potential interventions to improve career decision-making self-efficacy, such as the use of a computer-based exploration program (DISCOVER; Fukuyama, Probert, Neimeyer, Nevill, & Metzler, 1988) and verbal encouragement from a career counsellor (Luzzo & Taylor, 1994), both of which reliably improved CDMSES scores. The latter of these two findings is particularly notable given the aforementioned role that verbal encouragement is said to play, as described in Self-Determination Theory, in improving motivation (Deci & Ryan, 1985).

Modelling

Modelling is a second source of social feedback described in SCT, through which it was proposed that people can learn to engage in behaviours without being directly taught them (Bandura, 1977). Bandura's earliest modelling studies were the Bobo doll studies of the early '60s (i.e., Bandura, Ross, & Ross, 1961; Bandura, Ross, & Ross, 1963), in which it was found that children exposed to videos of an adult behaving aggressively tended to imitate those behaviours without being directly instructed or rewarded in doing so. Further, as outlined above, modelling was cited as one of the four sources of self-efficacy information.

At the time of their being conducted, the modelling studies stirred up massive

controversy, wherein behaviourists criticized a number of features of the underlying theory. Four of these criticisms were as follows: that imitation could only result in mimicry; that the cognitive processes underlying modelling were impossible to measure; that modelling was antithetical to creativity; and general scepticism about the indirect nature of the reinforcement necessary for model-based learning to occur. Bandura (2012b) posited that such criticisms were based on misconceptions. It was argued that the underlying principles of what was modelled were being picked up rather than simply the specific behaviour itself, and learners could therefore expand on or alter observed behaviour. In addressing criticisms related to measurement, Bandura had participants in one study verbalize their rationale for adopting modelled behaviours, finding that their reasoning supported hypotheses about the model-based learning process. The third issue was similar to the first, in that they both attacked the apparent conflict between imitation and innovation, and thus was similarly responded to in the suggestion that people can interpret and recycle a model's behaviour differently. Further, it was believed that people could amalgamate behaviours displayed by multiple models, which would account for variability in outcomes. The final concern, regarding indirect reinforcement, was simply diminished by the consistent finding that it seemed that the expectation of a positive outcome was enough to encourage performance of a modelled behaviour.

Though once a contentious topic, the consistent findings regarding model-based learning have made it a popular area of research. Over the years, many interventions based on the tenets of social modelling have been implemented and evaluated. Overcoming phobias (Bandura, Jeffery, & Gajdos, 1975), teaching life skills to adults with severe intellectual disabilities (Cannella-Malone et al., 2011), and assisting children with Autism to develop social skills (Odluyurt, 2013) are just a few of the purposes model-based learning has served. Given that

anxiety reduction and the development of skills and behaviours seem to be two themes common to both the modelling and career exploration literature, it follows that modelling could also be useful in an occupational context.

Relevance to the Current Research

The overarching connection between Social Cognitive Theory (SCT) and the current proposal is the hypothesis that the four sources of self-efficacy information (i.e., task experience, modelling, affective arousal, and feedback) presumably affect students' career decision-making self-efficacy the same way they have been shown to affect other forms of self-efficacy. The Career and Work Exploration 30 (CWE30) curriculum does not directly mirror Bandura's four-source system (1977), but the argument can be made that the ways in which information is disseminated throughout the curriculum cover, more or less, each of the four self-efficacy feedback routes: experiential, feedback, modelling-based, and affective (Saskatchewan Learning, 2002). More specifically, students engage in career exploration tasks (e.g., resume writing and interest inventories), have exploration modelled (i.e., via the teacher), receive evaluation in the form of grades or, preferably in light of the reviewed literature, the teacher's descriptive feedback, and, ideally, begin to feel less anxiety (i.e., reduction in emotional arousal) at the prospect of exploring careers on their own. The in-class portions of the CWE30 curriculum are much more general in scope than the intervention reviewed above (i.e., Betz & Schifano, 2000). Thus, it was anticipated that completion of the in-class portion of CWE30 would relate to career decision-making self-efficacy broadly, as defined by Taylor and Betz (1983), more than self-efficacy pertaining to a single career.

The modelling portion of SCT is also applicable to the current study because students in the CWE30 program are given the opportunity, depending on site availability and practicality

(e.g., safety, transportation, etc.), to job shadow or volunteer in the field of their choice. Ideally, this gives them a unique opportunity to be directly exposed to a model working specifically in their area of interest, as well as potentially be able to engage in some of the tasks required to be employed in that area themselves. A particularly relevant study featuring this kind of arrangement was conducted by Speight, Rosenthal, Bonnie, and Gastenveld (1995). Their research evaluated the impact of a three day camp designed to increase grade 9 students' self-efficacy in pursuing a career in medicine. Over the course of the three days, students and medical professionals from a variety of backgrounds and skill levels worked together in diagnosing a clinical case study presented on the first day. The camp was developed utilizing all four forms of self-efficacy information, with task accomplishment being addressed through hands-on lab work and discussion, and modelling, emotional regulation, and feedback taking place within the collaborative relationship facilitated during the camp between students and medical professionals. Participants were asked to complete a number of brief self-efficacy questionnaires designed to tap into confidence related to specific tasks and skills within the medical field. These questionnaires were completed before and after the three-day camp, the conclusion being that students' self-efficacy in these areas, on average, improved significantly. It was inferred that the placement or job-shadowing component of the CWE30 course could offer a less-intensive version of this experience and, therefore, result in a similar outcome. Adding value to the experience is the aforementioned finding that situation-specific increases in self-efficacy can positively affect other areas as well (Bandura, Jeffery, & Gajdos, 1975). Thus, possible changes in job-specific self-efficacy were investigated as well.

Summary and Concluding Comments

Ultimately, there were two main foci selected for the current research: motivation and

career-related self-efficacy. Though the potential influence of modelling was of considerable interest throughout this research, the close tie between modelling and self-efficacy made an integrative approach, with self-efficacy taking on a more prominent role, more logical. On the whole, self-efficacy and motivation appear to play an important part in affecting how much, or little, students autonomously engage in career exploration. Students who lack intrinsic motivation to seek out career information (e.g., who feel pressured by parents or teachers) tend to engage in less autonomous exploration. Career decision-making self-efficacy has been shown to be a significant determinant of students' level of exploratory activity. As one might expect, students who feel more confident in their ability to successfully complete tasks related to finding a suitable career are more likely to engage in independent exploration.

The importance of adolescent career exploration cannot be overstated. Students in this age group are making decisions that can dictate their future opportunities, particularly in regards to post-secondary training and education. Further, they are doing so in a time when training beyond secondary school is necessary to meet the skill requirements of many jobs for which a high school diploma was once sufficient. Research has shown that students who have higher occupational self-efficacy are more likely to explore a variety of careers, to prepare themselves better for the workplace, and to show persistence when faced with obstacles (Brown & Lent, in Pajares & Urdan, 2006). Intrinsic motivation for career research has been linked to increases in independent career exploration and enthusiasm (Kerner et al., 2012). Thus, it seems clear that self-efficacy and motivation offer promising angles from which to address an important issue.

The structure of the CWE30 curriculum appears to be conducive to improving both motivation and self-efficacy (Saskatchewan Learning, 2002). As will be described in more detail in Chapter 3, Self Determination Theory's three tenets, autonomy, relatedness, and competence,

and Social Cognitive Theory's self-efficacy sources of experience, modelling, emotional response, and feedback are all arguably met in some form via the design of the CWE30 curriculum. Further, in line with aforementioned research emphasizing the necessity of career exploration skills in an uncertain and volatile job market (Hiebert, 2010), the CWE30 curriculum document itself states one of the goals of this course as the development of the ability "To adapt to the changing employment environment, and its changing patterns and requirements" (Saskatchewan Learning, 2002, p. 1). Given this foundation, my research questions were as follows:

- Is there a relationship between CWE30 completion at this Saskatchewan high school and career decision-making self-efficacy?
- Is there a relationship between CWE30 completion at this high school and career exploration motivation?
- If necessary, what could be altered in the implementation of the CWE30 curriculum at this high school to encourage career exploration during and after the class?

CHAPTER 3
METHODOLOGY

In this chapter, various aspects of the development and implementation of the research design are described. The rationale behind the school and class chosen for the case study and information pertaining to the students recruited is explored first. Next, ethical considerations given the age of the students, the subject matter of the study, and the researcher's history with the school is expanded on. Third, the various data sources and corresponding analyses are detailed. Finally, the triangulation process utilized to help increase trustworthiness of the findings is described.

Case Study: Career and Work Exploration 30

Case study is described as a methodology undertaken "when examining contemporary events, but when the relevant behaviours cannot be manipulated" (Yin, 2014, p. 12). The subject of the current study, a grade 12 career exploration classroom, was thus an ideal candidate for this methodology: it is a real-world context in which complete control over experimental conditions was impossible. Students came to the study from a variety of backgrounds and their activities outside of the classroom were impossible to monitor or readily account for. Further, the complex dynamics of the classroom environment are equally difficult to control for. Related to this point, case study is also used to get an in-depth perspective of a phenomenon within which there are so many variables present that measurement of all of them would likely be impossible. Triangulation, or the comparison and integration of these various data forms, becomes necessary because the "phenomenon and context are not easily separated" (Yin, 2014, p. 17). That is, a researcher may overlook the impact of numerous factors on the variable of interest in a complex environment if only one method of data collection is relied upon.

The large number of variables present in most case studies generally necessitates the

collection of diverse types of data, often including a mix of quantitative and qualitative measures (Johnson, Onwuegbuzie, & Turner, 2007). The diverse research that has already been done in the area of career exploration offers a plethora of options in terms of methodological approaches, but, notably, most of the reviewed studies have exclusively employed the use of either only qualitative or only quantitative measures (e.g., Betz & Schifano, 2000; Kerner et al., 2012). The use of qualitative measures allowed students to elaborate on quantitative responses and, ultimately, to mould the course and focus of the research. For all of these reasons, a mixed-methods approach was used in the current study. Because the use of multiple methods can result in an abundance of data, certain foci must be chosen before the study commences. In present case study, the goal was to acquire a thorough understanding of student experience of the Career and Work Exploration 30 (CWE30) curriculum, with a focus on motivation and career decision-making self-efficacy.

The Career and Work Exploration series of high school classes is described on the Saskatchewan Public Schools' (n.d.) website as "[blending] theory-based and experiential learning components in a career development continuum of awareness, exploration, and experience." As the description implies, CWE integrates classroom learning with real-world experiences, such as job shadowing and work placements, intended to allow students the opportunity to try different careers. As was touched on above, a number of studies have suggested that hands-on experience and exposure to models can be invaluable resources for increasing career-related self-efficacy (e.g., Betz & Schifano, 2000; Speight et al., 1995). Being that the CWE curriculum is designed with first-hand career exposure and experience-based exploration and preparation at its core, those who complete the program may embody the impact, if any, that experiential career education has on students' ability to confidently and effectively

make career-related decisions.

Selection of Case: Career and Work Exploration 30

Essentially, the choice of school for this case study was a matter of convenience, as the researcher had a previous relationship with the staff. Notably, the high school selected was described by the CWE30 teacher as attracting students from a variety of ethnic and socio-economic backgrounds, hosting a uniquely diverse student populous. The location of the school, on the outskirts of an urban centre as well as falling in between lower-income and very new, high-income areas of the city, was thought to promote this diversity. Students from rural communities were often bussed in to attend this school and it was a convenient distance from disparate neighbourhoods. The diversity within the school was additionally beneficial because previous research had shown that differences in Canadian career education can occur not only between provinces, but even among schools within the same city (Benjamin, 2009). The use of case study methodology, in part enhanced by the presumably diverse sample acquired from this particular school, allowed the researcher to hone in on a snapshot experience of this curriculum.

Bandura (in Pajares & Urdan, 2006) describes adolescence as a time of transition between being constrained by social boundaries and acquiring the freedom to play an active part in determining one's life circumstances. Adolescents, particularly those late in this developmental stage, must strike a balance between biological and emotional changes that they are experiencing and increasing social expectations and responsibilities. Essentially, teenagers are preparing themselves for the adult roles that they will fill. Nowhere is this transition more apparent than when adolescents are preparing to enter the world of work or post-secondary studies. Students looking for jobs straight out of high school are in a more difficult position than ever, as many promising positions require further training or do not take young applicants seriously. Entering

post-secondary is equally fraught with difficulty, as students make serious financial bets on their interests, often without much knowledge of what a particular major entails.

Participants

The participants in this study were grade 11 and 12 students enrolled in a CWE30 class at a high school in Saskatchewan. The students selected to participate in this study had three consistent characteristics: they were enrolled in CWE30, they were in late adolescence (i.e., 16-18 years old), and they were anticipated to represent a diverse array of socio-cultural and economic backgrounds, though cultural and socio-economical information was not acquired. Fifteen students were enrolled in the CWE30 class that was selected for the case study. All 15 consented to participate, but one dropped the class before the end of the semester and one picked up the class after the start of the semester. Thus, in total, 16 students and one teacher were a part of the case study. However, only 14 students' information was included in the pre-post analyses of the quantitative data, as only 14 students submitted both copies of the CDMSE-SF. Information from students who completed only the first or second set of measures was included in the motivation questionnaire portion of the findings. Nine of the students were female and seven were male.

Ethical Considerations

Because of the context of this study, ethical approval was acquired through the university's Behavioural Research Ethics Board and the school district's research board. The Coordinator of Research and Measurement was directly consulted in the development of this research protocol. Upon acquiring approval from the division via the coordinator and superintendent, the school's Principal and a CWE30 teacher were contacted and asked whether they would be willing to allow the researcher to conduct a case study of their class. Because of

the students' age, they were able to give informed consent individually at the time of testing. Parental consent was inferred via an opt-out process wherein parents were notified a week before data collection as to the rationale and the research protocol of the study. They were given the opportunity to contact the researcher directly to indicate that their child could not participate. No parents contacted the researcher at that time.

A secondary ethical concern was the possibility of prior relationships. In the semester before data collection took place, the researcher had consistent exposure to the school population with whom the case study was meant to be conducted. This ended before the CWE30 class of interest began, so dual relationships during the study's implementation were not a concern. However, during her time at the school, the researcher worked with a number of grade 11 and 12 students, and there was a chance that such students would enrol in the given CWE30 class. Fortunately, only one student in the class was familiar to the researcher, and their contact had been limited to a single brief session. The researcher's main concern was that students who she had previously interacted with would feel obligated to participate in the research or to respond in a particular way, in line with what they anticipated that the researcher expected. Negligible contact during the practicum along with emphasis during the initial introduction of the study that students would not be judged or penalized in any way for their responses or participation choices are anticipated to have minimized this risk.

Data Collection

Canadian researchers in recent years have lamented the lack of evaluative-type studies in the area of career exploration (e.g., Benjamin, 2009; Hiebert, 2010; Roest & Magnusson, 2005). A pre-post design was adopted as it was expected to be an effective means of capturing possible changes occurring in relation to students' participation in CWE30, thus offering insight into the

impact of the course. The studies by Schifano and Betz (2000) and Speight et al. (1995), in which pre-post comparisons were successfully and purposefully made, supported the use of pre and post measures. Two measures were administered at the beginning and end of the semester: the Career Decision-Making Self-Efficacy Scale – Short Form (CDMSE-SF; Taylor & Betz, 1983) and a motivation questionnaire inspired by Kerner et al. (2012).

As was touched on above, Kerner and colleagues (2012) provided the framework for the use of a case study approach in the current proposal. As Yin (2014) stated, "A major strength of case study data collection is the opportunity to use many different sources of evidence" (p. 119). Thus, in the present study, various types of data were collected. Along with the written measures that were administered at the beginning and the end of the semester, semi-structured interviews were conducted with two students and the CWE30 teacher, and a copy of the curriculum, student attendance, and blank copies of all assignments were collected. Drawing information from the teacher's and students' written and verbal experiences, students' exposure to the course material (i.e., attendance), as well as direct evidence of how the curriculum was being implemented in the classroom (i.e., assignments) was anticipated to offer the researcher a relatively complete picture of the CWE30 experience.

Career Decision-Making Self-Efficacy Scale

As shown in the aforementioned pre-post studies (i.e., Speight et al., 1995; Betz & Schifano, 2000), the use of a quantitative measure can serve to simplify the comparison process, as well as offering an additional source of data within the case study framework. The quantitative measure used was Betz and Taylor's CDMSES-Short Form (1996; Betz & Taylor, 2012). It was adapted from the original CDMSES (Taylor & Betz, 1983), and taps into the same five areas, based on earlier work by Crites (1978), of what is termed *career decision-making competency*: 1)

accurate self-assessment, 2) ability to acquire occupational information, 3) goal setting abilities, 4) planning skills, and 5) problem solving skills. These are skills that are embedded in the CWE30 curriculum (Saskatchewan Learning, 2002). As is discussed in further detail in Chapter 4, in order to meet curriculum objectives, students in CWE30 must complete interest inventories, explore sources of career and labour market information, engage in goal setting and planning, and, presumably as a result of these activities, strengthen their problem solving skills. Thus, it was expected that completion of the CDMSES-SF within a pre-post experimental design would offer relevant insight into the potential impact of CWE30.

The original CDMSES was evaluated in 1983 (Taylor & Betz), when it was first developed, and again in 1996 (Betz & Luzzo). The first study was conducted with 346 university students (Taylor & Betz, 1983). The CDMSES was used alongside the Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koschier, 1980), a measure designed to tap into students' career indecision. The potential relationships between CDMSES scores and sex and academic standing were also examined. No significant differences in scores were found between the sexes and only minimal relationships were found between CDMSES and academic achievement. In relation to the CDS, it was found that CDMSES scores tended to be lower when students reported being more undecided in their career choice. The second paper discussing evaluation of the CDMSES came after a number of research studies had used and informally assessed the measure. It had been shown to have high internal consistency reliability (α=.86-.89) and a strong retest reliability after six weeks (α=.83) (Betz & Luzzo, 1996). Criterion and construct validity were supported by the CDMSES's relationship with measures of career indecision, like the CDS.

The CDMSES-Short Form was developed in 1996 by Betz, Klein, and Taylor. The goal

was to adapt the original scale to be more practical for research and clinical purposes, as administering a 50 item measure was considered cumbersome. As evaluations of the original CDMSES had provided a great deal of information regarding which items were most effective in terms of honing in on the original five criteria (i.e., self-assessment, occupational info gathering, goal setting, planning, and problem solving), Betz and her colleagues simply eliminated the 25 questions that were least effective at targeting the desired domains. The measure was tested with 184 university students. Internal reliability alpha was found to be strong (α=.73-.83), with the self-assessment factor being the least reliable. Overall reliability was found to be very high (α= .94). The CDMSES-SF was additionally shown to have a strong relationship with the CDS, again supporting concurrent validity. However, a significant sex difference was found in that women's career decision-making self efficacy appeared to be more closely tied to career indecision than men's. Though this discrepancy was outside of the scope of the present study, it of course raises intriguing questions for future research.

Motivation Questionnaire

The motivation questionnaire developed for this study was adapted from the Amotivation Questionnaire used by Kerner et al. (2012). Their research was focused on students who were disengaged from career education, and thus the questions on their measure were phrased negatively. For example, "When you think about career exploration, what is it that doesn't feel interesting and motivating to you?" (Kerner, 2011, p. 211). In altering it for use in the present research, this question was reworded to say "When you think about career exploration, does it seem motivating and interesting to you? Why or why not?" This procedure was followed in adapting all but one question from the original questionnaire. The omitted question, question 4, was removed because it was very specifically tailored to the group Kerner and her colleagues

were working with.

Semi-Structured Interview

Semi-structured interviews have been used in many studies in the area of career exploration (e.g., Benjamin, 2009; Kerner et al., 2012; Usinger & Smith, 2010). The semi-structured interview is often used as an adaptable, exploratory measure in case studies (Yin, 2014). In contrast to the two fairly structured, written measures previously described, the semi-structured interview offered participants the opportunity to express themselves more flexibly. Though there were prepared questions being asked, they could be expanded on, and new directions could be taken as the conversation developed. This was an opportunity for participants to speak their minds freely and express themselves through a different medium. Being that this is a fairly new area for case study research, the semi-structured interview was adopted to facilitate the ability of the participants to potentially take the study in unforeseen directions. The use of a single-interview method with a small number of students is supported by the qualitative work of Kerner et al. (2012) and Benjamin (2009). Interviews with two students and the CWE30 instructor were conducted after the semester ended. Though it was hoped that a process, related to students' responses on the paper measures and their attendance, could be utilized in deciding which students to interview, only two students ultimately connected with the researcher to complete the interview.

Artefact Collection

Yin (2014) emphasized the importance in case studies of acquiring a broad array of information types, including observations. This emphasis has to do with his view that in studying in a naturalistic environment, we must "assume that such an understanding is likely to involve important contextual conditions" (Yin, 2014, p. 16). Ethical concerns raised by the SPSD

prevented in-class observation of students. As an alternative, it was decided that observations would be restricted to the collection and analysis of the publicly available curriculum documents, classroom attendance, and blank versions of the assignments students were tasked with completing during the semester. As with the rest of the methodology, both Self-Determination Theory (SDT) (Deci & Ryan, 1985) and Social Cognitive Theory (SCT) (Bandura, 1977) inspired the focus of the analyses of these documents.

Data Analysis

The variety of data sources necessitated a similar diversity in analysis procedures. The CDMSE-SF results were analysed using *SPSS* statistical software. The data acquired from the motivation questionnaire and interviews were coded for themes derived from SCT (i.e., performance, modelling, emotional arousal, and verbal persuasion) and SDT (i.e., competence, relatedness, and autonomy). The limited amount of interview data precluded true thematic analysis, thus the information was used mainly descriptively in acquiring a better understanding of the course implementation. The questionnaire information was typed out and the interviews were recorded and transcribed for easier examination. Assignment evaluation was also difficult, as in-class instructions may have altered the meaning and impact of the documents and in class observation was not possible. Hence, these documents were also used to bolster the understanding and description of the curriculum rather than as direct measures of student exposure to SCT and SDT principles.

Procedure

Once ethical approval was acquired and the necessary permissions within the school (i.e., from the principal and the CWE30 instructor) had been received, the researcher asked the CWE30 teacher to distribute information and opt-out letters to the students to give to their

parents during the first week of February (i.e., a week before data collection commenced). One week later, time was set aside during class for the researcher to come in and explain the research. At this time, informed consent was acquired from anyone who wished to participate. On the consent form, participants were asked to check off each aspect of the research that they were willing to participate in. They could choose to consent to any or all of the following: completion of the two paper measures, being contacted in June regarding an interview, and having their CWE30 attendance shared with the researcher at the end of the term. Students who consented to contact regarding the interview were asked to provide their e-mail address. All consenting participants, regardless of their completion of the study, had their name placed in a draw for a movie ticket for two. A second draw was performed in June after the second round of forms was distributed. Knowledge of the draw was shared with the class verbally after the consent forms had been distributed. Non-participants were instructed to work on a separate, paper-based activity at their desk while the measures were being completed.

Students who did consent were first asked to fill out the CDMSES-SF which, as described above, had been edited to include a demographic survey asking for general information (i.e., age and sex) as well as questions regarding their previous work, volunteer and job-shadowing experiences. A baseline of previous exposure to experiential career exploration was desired in order to accurately measure the relationship between the class and the development of self efficacy and motivation. Students were then instructed to complete the motivation questionnaire. These two measures were administered to participating students, provided they remain enrolled in the course, during the first and last week of class. The only difference between the two collections periods was that question one, "Why did you decide to take Career and Work Exploration 30?" was removed from the copy of the motivation questionnaire provided

at the end of the semester. The researcher felt that asking for this information twice would be redundant and unnecessary. Instructions for both instruments were included on the paper measures themselves so that the teacher could give students who were absent on the testing day an opportunity to fill out the measures as well. Because all students who participated were present for the first round of questionnaires, the teacher was only tasked with following up with students who missed the post-test class at the end of the semester. Late measures were collected a week after the initial distribution. A list of student attendance was also acquired at the end of the semester in an effort to consider the possible influence of a significant number of absences resulting in differences in exposure to the class activities. Students who declined to have their attendance monitored were removed from this portion of the analyses.

Also during the final week of class, the researcher contacted the teacher and the students who indicated interest on their consent forms to set up in-person interviews. The students were contacted through the e-mail address that they provided in February on their consent forms. A mass recruitment e-mail was sent out initially. Interviews were scheduled to take place within one week of school ending in order to maximize the congruence of the two types of data (i.e., written and verbal) in terms of what they were measuring. That is, having one measure administered immediately and another too long afterward could mean that the written measures were picking up immediate impact while the interview would be tapping into the longevity of the impact.

Regrettably, class ended sooner than anticipated by the researcher, and students had to be contacted during the first week of summer holidays. Response rates were low, and only the instructor was available to interview in person at the school. The high potentiality for confounding factors to impact the students once they graduated, and essentially had no

alternative but to begin looking at their career options, shortened the period of time during which interviews could be conducted. Ethical protocol was changed to allow students to respond to the interview questions either via telephone or through email, which was expected to be more convenient for students who may be travelling or busy with post-graduation activities. Two students, heretofore referred to as Alexis and Dave (pseudonyms), volunteered for interviews over the phone; one volunteering after the second mass e-mail and the second volunteering after a fifth and final e-mail. As students responded to the recruitment messages, their addresses would be removed from the mass contact list. The two interviews that were conducted occurred two weeks apart with the first taking place three weeks after school ended and the second two weeks after. However, both students seemed very able to recall their experiences and offered valuable insight into the pros and cons of the CWE30 program, as they saw it. It was deemed prudent to end the interview recruitment when no further responses had been garnered after three attempts to contact students. This occurred approximately 1.5 months after the semester ended. Interviews conducted over the phone were followed up by a provision of the transcript via e-mail. Students were given time to review the transcript and agreed to releasing the final version via e-mail as well.

The third step in the research was the collection of CWE30 artefacts. The curriculum documents and blank copies of activities the students had completed in and outside of class were acquired. The curriculum documents were available publicly online and copies of all assignments were set aside by the CWE30 instructor and collected at the end of the semester.

Trustworthiness

Similar to the measurement of convergent validity when developing quantitative instruments, qualitative and multi-method research techniques, such as case studies, require the

inclusion of a process to ensure an acceptable level of trustworthiness. Commonly in case studies, the use of triangulation, in which many sources of data are collected and compared for consistency, is used to this end (Yin, 2014). In the present study, four sources of data were collected: interviews, the CDMSE-SF, the motivation questionnaire, and class documents (i.e., the curriculum and assignments). These data were compared and integrated to offer a picture of the CWE30 course implementation at the chosen school that was as full and realistic as possible. Though there were, of course, variations in the students' reported experiences, the findings were not inconsistent in such a way as to indicate that students had responded disingenuously or that the methodology was unreliable. For instance, students reported having different placement experiences that resulted in differing levels of enthusiasm about the program. While the inconsistency in student experience is unfortunate, as a positive experience is ideal, this difference is a testament to the implementation limitations of the curriculum in its current form and offers valuable information for improvement in future academic years. On the whole, it is believed that the findings of this research offer a truthful glimpse into this CWE30 classroom and the experiences of the participants.

CHAPTER 4
FINDINGS

The purpose of this chapter is to describe the quantitative and qualitative results of the study. It begins with a summary of CWE30 that integrates ideals described in the curriculum documents, actual assignments, and the feedback of the students and teacher. Next, motivation is explored within the scope of Self-Determination Theory (SDT; Deci & Ryan, 1985), as indicated by responses on the motivation questionnaire. Self-efficacy findings, divided into statistical analyses of the Career Decision-Making Self-Efficacy Scale – Short Form (CDMSE-SF; Taylor & Betz, 1996) and qualitative feedback from the interviews and motivation questionnaire, are also described. In closing, a summary of the findings is provided.

Career and Work Exploration 30: Descriptions, Perspectives, and Assignments

The Career and Work Exploration set of courses is a three-stage, blended program designed to give students the opportunity to acquire valuable workplace experience supported by a foundation of job preparation skills developed in the classroom (Saskatchewan Learning, 2002). Career and Work Exploration 10 and 20 (CWE10 and CWE20) are described as intended to focus on career awareness and exploration, respectively, while Career and Work Exploration 30 (CWE30) is described as focusing on experience. There is a general curriculum outline offered with various modules described as either *core* or *optional*. However, there is a recommended arrangement of modules for each level of the class along with estimates as to how long the content in each module will take to teach. Notably, the three courses have a lot of overlap, with at least three of the modules in each course appearing in the next level of the course as well. Table 1 depicts the required components within the three sections along with the differences in time distribution. As can be seen, the repeats are most commonly Workplace

Table 4.1

Saskatchewan Learning Core Curriculum Guidelines for Career and Work Exploration 10-30

	CWE10	CWE20	CWE30
Required Modules	An Introduction to Career Development	Portfolios	Work Preparation and Follow-up Activities
	Portfolio Building	Work Study Preparation and Follow-up Activities	Work Placement
	Understanding Transferable Skills	Work Placement	Occupational Health and Safety
	Career Information	Occupational Health and Safety	WHMIS
	Work Study Preparation and Follow-up Activities	Labour Standards	Career Decisions
	Work Placement	Self-Awareness and Success	Labour Standards
	Reflections	WHMIS	
	Occupational Health and Safety	Recognizing Hazards	
	Labour Standards	Labour Market Information	
	Workplace Hazardous Materials and Information System (WHMIS)	Employability Skills and the Changing World of Work	
		Exploring Educational and Career Pathways	
		Job Search Skills, Tools, and Strategies	
Grade Weighting	65% classwork 35% placement	50% classwork 50% placement	25-50% classwork 50-75% placement
Placement Hours	40-60	50-70	75

Hazardous Materials Information System (WHMIS) training, work study preparation and follow-up (i.e., presumably resume writing, interviewing, and cover letters; reflection on the students'

experience following the placement), and labour standards. Further, as none of the classes have pre-requisites, one is left to wonder what the students who, for example, did not take CWE20 and complete the Job Search Skills, Tools, and Strategies module will do when they reach CWE30 and are expected to complete the Career Decisions module (Saskatchewan Learning, 2002, p. 9). The main difference in focus appears to be conveyed by the grade weighting of the assignments versus the placement (i.e., 65% assignments/35% work placement assessment in CWE10 to 25-50% assignments/50-75% work placement in CWE30) as well as the number of hours the students spend at their placements (i.e., 40-60 hours in class/40-60 hours at work in CWE10 to 25 hours in class/75 hours at work in CWE30).

The CWE30 class at this Saskatchewan high school commenced in February of 2014, and students were expected to pick their placements within the first week of classes. Students ranked their top five prospective employers, and the CWE30 teacher did her best to match them with an appropriate position. Placements were expected to begin within 2.5 weeks of class starting. Though a list of possible work experience employers had been compiled in recent years by a group of career education teachers in Saskatchewan, each teacher is still in charge of contacting the employers who the students select and initiating the work terms. When the time commitment was brought up, the teacher explained that "there's so much problem solving. And people think that – you know other fellow teachers and whatnot… you know you're out driving around, you're not in school in the afternoons - they think it's a breeze." Problem solving related to placing students – making contact with employers, helping students arrange transportation, etc. – takes up a large portion of the CWE30 teacher's time in school as well as often time outside of work depending on the source of the connection. Teachers in this division often utilize their own social or academic networks to place students. Further, the short period of time that the instructor

had to place her CWE30 students added tension as some requests were difficult to accommodate (e.g., working in highly technical fields or with children). One of the students interviewed, Alexis, who originally wanted to work with children, described her situation as follows:

> So she (the teacher) was like "Well why don't you work here (a caretaking position with adults).."… but I didn't really want to do it a lot. And so she's like, "Well we can't find anything else, just go here," and we had to like have our placements soon anyway, so she just kinda like picked it and was like, "You can work here," and I was like, "Okay, I guess so."

On the contrary, a student named Dave described his first choice employer as "a little slow to reply" but stated that, "once they did everything was pretty smooth." He was extremely enthusiastic about his placement, saying, "Oh it's - makes me - makes me more confident about it (being employed in his field of interest). The training there is on the job, which is awesome. They get great benefits and, uh, they-they teach you everything you need to know..."

The teacher also referred to the different types of students she sees entering CWE30:

> Some are looking for a job and they're using that as an avenue. Uh, that would be one reason. Because they want to find a job. Number two – uh – I think sometimes it's a dumping ground. Maybe they don't want to actually take it but guidance puts them in there. So they find themselves there and not really know what the class is. Another reason I think that they take it is because they are looking for some experience… trying to figure out what they want to do with their life.

When asked about the different paths she sees these different types of students taking, the instructor responded,

> Um their choice of placement would be different. Kids will choose a place because they want to work there after (after class ends) as opposed to

> somebody that says, "Hm… I really like animals. I think I would like to try working at a pet grooming place or at a veterinarian's office."

So while some students may use their placements to get a foot in the door at a restaurant or store, others will use them as an opportunity to get a sneak peek at the reality of a longer term career possibility.

The students completed assignments during the semester, many of which were intended to fill a portfolio that was due at the end of the term. Most assignments consisted of an explanatory handout or example sheet and the paper-based assignment, which was either completed as a reflection activity or by researching online. In terms of self-assessment, students completed an individual, paper-based value assignment, a personality test, and a goal setting activity as well as two skill assignments: one where they reflected and wrote five-point paragraphs on their teamwork/leadership skills, personal management/employability skills, and community involvement and another where they chose a paper-based or online version of a skill chart to fill in. Job search preparation included writing cover letters and resumes using examples, and sample interview questions and a practice interview assignment to prepare for an in-class mock interview session. For one assignment, students wrote reflections on the importance of initiative-taking, their own work experience before the CWE30 program, and general career awareness related to their personal aspirations. Workbook-based WHMIS training was also implemented. Finally, career exploration assignments included two research projects: one on the labour market and one on post-secondary pathways. Students also completed presentations on their placements at the end of each and a self-evaluation related to it. The number of assignments the students completed was difficult to accurately determine, as there are numerous points on the portfolio that would not necessarily qualify as assignments (e.g., a thank you letter to an

employer), as well as a number of assignments collected that are not listed on the portfolio (e.g., the WHMIS workbook). In any case, it does seem that there are a substantial number of assignments given the brief period of time the students are spending in the classroom (i.e., 25 hours). However, as touched on further below, it is difficult for the CWE30 teacher to prioritize a particular focus in the class as it is non-prerequisite and, therefore, students enter it with different levels of career and self-knowledge.

A recurring theme in both the interviews and the motivation questionnaires was that the students felt that the course material was repetitive. Not within CWE30 itself, but either from having taken Career Education 9 or one of the other CWE courses. An example of a response from the motivation questionnaires from the end of the semester was, "90% of the work in class was the same work that was assigned in Career 10 class" and as Dave lamented

> The class work can be repetitive. Since I took the class, um, every single year, uh, I was kind of doing repetitive stuff. Like, you know, what do you want to do, you know, how would you get certain applications or - or uh, certificates. Stuff like that. And that was just kinda like every year - it's the same one over and over and over.

This issue seems to stem from the fact that CWE30 is an elective course that has no pre-requisites, therefore making it difficult for the teacher to change the implementation of the curriculum from one course level to the next. Ms. Smith remarked that,

> Kids get lots of this information in Career Ed. 9 [a mandatory course in the SPSD]. And I suppose that's one of the things I'd like to switch a little bit with Career ed um 20 or 30 - or whatever the case may be - is there's no prerequisites. Which is fine, but then once again you've got kids who have taken uh maybe two career ed credits before they even get to the 30. And then you've got people who are brand new to it. And so you don't know where to

> start with everyone. You've got to take some right back to the beginning of what are your interests? What are your values? What's your personality? And the rest of them are just ready to soar - like move on, be challenged.

The CWE30 teacher also mentioned that class enrollment seems to be getting lower as students do not appear to see the value of extending their career education past the mandatory grade 9 course. While the issue of repetitious curriculum content is clearly resonating with the teacher and students, it is difficult to say what the solution would be. As it stands, many students use the 30-level course to get grade 12 credit towards graduation, and it may be difficult to convince students to take three career exploration classes even if it meant more unique content in each level.

Comments in the interviews as well as the motivation questionnaire supported the value of the placements, and it was clear that the students preferred time spent at the placements over in the classroom. When asked what, if anything, she would change about CWE30, Alexis responded, "I would change that you could get like instead of doing three hours a day that you would be able to do more hours" and Dave said, "more volunteer work time." Regarding the types of students who tend to take CWE30, the teacher said, "I find traditionally the kids that take this class are ones that need to be out working as opposed to sitting in a desk and reading and working." Part of the instructor's job is site visits to the students while they are working at their placements. In reference to this part of the course, she said, "That's probably the most fun part of my job. Just seeing the kids out working." Many students echoed enthusiasm about the placements on the motivation questionnaire while reporting less eagerness about the classwork, with comments such as, "I like the placements and opportunities but a lot of the class work felt redundant" or "so far, the assignments are easy and unchallenging so class time is bland", this

student adding, “but I understand it's necessary to successfully function in the workplace.”

Students who mentioned wanting more placement hours actually contrasted with the teacher’s perception that the students were expected to do too many hours. She said,

> I really found this semester kids had a hard time getting their hours. And our kids here at [school], they come to school, they went to their placement in the afternoon, and then many of them went to a job after. And it really wore them out. It was – it was hard on them. And I never looked at it that way before, and I know they’re really stretching us to the max on the hours that we’re required for our students to get and I actually feel I need to advocate for the kids and say that it’s too much.

However, some students did suggest that the balance between the placement, school, and their personal lives was difficult. The motivation questionnaires contained responses such as, “I find it will be [challenging and demanding] due to challenge of school and work”, “I didn't find [career exploration] challenging, however for many of us it was an issue with our school and employment,” and, “It can interfere with your personal schedule which definitely challenged me.” Others suggested that they would like to have some sort of pay for the work that they did, one student writing that it was “a lot of work with little pay.” When interviewed, Dave recommended,

> Maybe like you could get even like half the minimum wage, if that was possible cuz I know for some people you know you have to work around like family events or vacations or possibly even like their own - their own job they have.

It is most likely that there were students on both sides of the hours issue, particularly given the fact that students did mention that they would appreciate payment for the work or that they found it challenging to balance various demands on their time. This suggests that there may

be more factors to consider. For instance, perhaps the students are motivated and engaged in the career exploration process, but external concerns, such as financial stability, compromise their freedom to thoroughly consider their options. This was further attested to by the tendency of some students to use the placements in order to secure employment for after the term ended while others were using the placements to explore long-term career goals.

Motivation

In accordance with the methodology laid out in Chapter 3, Ryan and Deci's (2002) three-point support for intrinsic motivation was a focus of the qualitative analyses. Responses to the motivation questionnaire and student and teacher interviews were examined for mention of activities related to the three Self-Determination Theory (SDT) factors of competence, autonomy, and relatedness, as well as for the presence of intrinsic motivation. Unfortunately, the ethical issues related to in-class observation made it impossible to evaluate the classroom environment, so some valuable information as to the characteristics of the instructor's teaching style and the students' relationships was missed.

Most of the responses on the first round of the motivation questionnaire indicated that the students were already quite intrinsically motivated towards career exploration. Sample responses when students were asked why they took CWE30 were, "I wanted to figure out what I want to do. Learn about careers," "Wanted to learn more about jobs and thought it would be fun," "Experience", "I wanted to see what it is like out on the job", and variations thereof. Only a couple of responses seemed closer to the extrinsically motivated end of the spectrum, such as, "I felt that taking this class would help me smarten up in school and classes," and, "It would get me more job experiences, and the school counsellor said it would be a good class for me." Most students said that they were interested and motivated about exploration, and that they knew the

value and importance of doing so. A few students responded with answers such as, “Important just because, I guess,” and “ I’m not very motivated to do so because I don’t have many hobbies or things that I’m super passionate about…” indicating that there may be some external pressure as well as some lack of internalization, though they still realize that it is an important process. It was anticipated that this student group would show higher levels of intrinsic motivation towards career exploration, as they had opted to take an elective career education course. More commonly than extrinsic motivators, students expressed frustration or worry about having to make difficult and seemingly permanent choices about their future careers, stating, “I think it challenging because it's hard because you either don't know what you want to do or there's too many things you would want to do and it's hard to pick,” and, “I feel like it's challenging there's billions of jobs out there and it takes a lot of work and thought to figure out what I want to do.”

Student competence is theoretically fostered by the design of the CWE30 curriculum: students submit resumes and cover letters, ideally using information sourced from value and skill exploration activities, for the teacher’s approval. They then have to submit these documents to employers, attend an interview, and acquire a position. However, most of the assignments students completed did not seem to be designed in a competency-building style. The suggested method of building a sense of competency is by starting with an easily accomplished task, and then gradually increasing the difficulty until an ideal level of challenge has been acquired (e.g., Bandura, 1986). The only assignments where this design is apparent were related to interviews, where explicit interview guidelines, a research activity, and practice questions preceded a live mock interview. Theoretically, by the time the student entered the mock interview, their confidence would have been adequately enhanced by the sequence of preparation tasks. While it could be argued that the skill chart and value and personality assignments could be similarly

effective lead-ups to resume writing, the connection, at least on paper, does not seem overt enough to qualify as truly scaffolding the student's competency. It should be noted, however, that it was difficult for the researcher to evaluate assignments completely accurately, as the actual presentation of the tasks was not witnessed, so any alterations or additions to the instructions, etc., could not be documented. On the other hand, the interview and the motivation questionnaires shed light on student experiences of competence in the workplace. Dave was excited in his interview to speak to the new skills he had acquired through his placements. He said they "teach you everything you need to know" and recalled "like my third week there I think I was doing most the work for them." In a follow-up e-mail, he was more specific about his tasks, describing them in detail (omitted here to protect the student's identity) and emphasizing that, "Basically I did everything." Other responses from the motivation questionnaires indicated students' enthusiasm about learning new skills and becoming more certain of their goals. Reasons for taking the class included, "[to] get an early jump on some skills", "to learn about new things you may be interested in, "[knowing you'll] have an advantage in the career field." After their placements, students reported, "it has made my vision clearer," "it makes me feel confident about my future and it's really exciting when you think you've found your career path", and, simply, "I've learned a lot." These comments reflected a desire for, and experience of, competence in career exploration and workplace situations.

On the other hand, autonomy and relatedness were both areas that seemed to be lacking in the CWE30 experience. In regards to autonomy and choice, while some students, like Dave, were able to choose their placements presumably others, like Alexis who wanted to work with children, may have been left in a situation where they were unable to try out the roles that they wanted to. As Alexis put it, "my teacher kind of pushed me into doing [my first placement]. And

I found out it's something that I don't really like to do." It seems that some students having to take on roles that they were not particularly interested was a result of multiple factors: limits on the teacher's time and resources (i.e., about two weeks to place 15 students), the inherent danger present in some fields (e.g., welding, policing), the restricted access to some workplaces (e.g., schools, hospitals), and the self-supplied resources students require to work in some industries (e.g., steel-toed boots for construction). In spite of these difficulties, measures were taken to offer students alternatives. For instance, the teacher mentioned that sometimes if she cannot get a student a placement related to their interests, she will try to at least get them a day or two of job shadowing. She is especially willing to do this if the student has shown a strong interest and is motivated in the classroom. In the case of Dave, persistent contact with a particular company he was interested in working for eventually resulted in him being accepted for the placement he wanted. However, the issue of choice plagued the assignment portion of the class as well. Only one of the many assignments students completed, the skill chart, offered the students a choice in terms of how they would like to complete it. Additionally, some of the reflection tasks mentioned that students could choose to focus on particular accomplishments or skills that they had. The actual amount of meaningful choice this represents to the student, however, may be negligible. All of the other assignments seemed to be structured without much room for student adjustment or input. The instructor addressed this in her interview, saying,

> Lots of it's work sheets because, you know, the kids in this class their attendance is quite poor. And so the traditional worksheets are still used because one day you might have four out of sixteen kids there and so they've just got to be able to pick up and carry on when – without much instruction.

The topic of low attendance leads to the next point of concern: relatedness. Ryan and Deci (2002) defined relatedness as a sense of belonging or of being cared for by others. A basic

example of this is that young children tend to be uncomfortable exploring their environments when not in the company of an adult to whom they are securely attached. In an adolescent or adult environment, this kind of comfortable and attached environment can be developed through the use of activities that foster group cohesion, which was a focus of the motivation intervention performed by Kerner and her colleagues (2012). However, when the majority of the students are not attending the class, it becomes difficult for trust and comfort to grow within the group, as consistent members – if there are any – never know who will attend the next session. While most of the students likely had a strong relationship with at least one other person in the class or their teacher, the brief period of time spent in the classroom matched with low attendance and mainly individually-focused assignments would have compromised the levels of relatedness. This, of course, could have negatively impacted motivation. Of interest, some students reported what, at least *prima facie*, sounded like a strong sense of relatedness in their placements. When asked about his placement, Dave mentioned "there's no like negative people there. Everybody there's energetic, ready to go. Friends with everybody else." Alexis described what she enjoyed about her work experience, specifically her second placement in a restaurant, as, "you getta work at jobs that you think you might like and you meet like a bunch of interesting people which makes – they like make your placements really memorable." Both of these students were later hired by their placement employers.

Self-Efficacy

Betz (1992) suggested that career counselling interventions will be most effective if they are formed around the four sources of self-efficacy information proposed by Bandura (1977): feedback, emotional response, modelling, and performance. As with the three types of intrinsic motivation supports from SDT, the interviews, motivation questionnaire, and assignments were

examined through the lens of Social Cognitive Theory (SCT; Bandura, 1986) in assessing the presence of self-efficacy factors. Again, a lack of insight into the actual classroom experience was an unfortunate omission from this study. Nevertheless, quantitative information collected from the students via the CDMSE-SF and qualitative data from the motivation questionnaire, interviews, and assignments were useful in developing an understanding of both the self-efficacy supportive characteristics of CWE30.

CDMSE-SF Statistical Analyses

The CDMSE-SF results were analysed using a standard dependent t-test. This procedure compared students' first set of responses to their second. *SPSS* software was used to complete this analysis. As can be seen in Table 2 below, a significant difference was found between CDMSE-SF scores from the first and second administration.

Table 4.2

CDMSE-SF Scores Pre and Post CWE30 Completion

	Pre-test		Post-test						
Outcome	M	SD	M	SD	n	95% CI for Mean Difference	r	t	df
CDMSE-SF Score	3.72	0.56	4.09	0.57	14	-0.57, -0.18	0.81*	-4.07*	13

* $p < .05$.

More specifically, results of the paired-samples t-test showed the mean total score on the CDMSE-SF before students took CWE30 (M = 3.72, SD = 0.56) as falling just within the *Good Confidence* range (3.5-5.0), closer to *Moderate Confidence* (2.5-3.5) according to the CDMSE interpretation manual (Betz & Taylor, 2012). At the end of the semester, mean scores (M = 4.09,

SD = 0.57) fell well within the Good Confidence range, indicating a significant positive shift in career decision-making self-efficacy at the $p < .05$ significance level. On average, scores on the CDMSE-SF increased by 0.37 points.

Three correlations were also calculated using *SPSS* software: the correlation between changes in CDMSE-SF score and number of absences, previous career education classes completed, and previous volunteering or job shadowing experience. No significant relationships emerged from these analyses. The computation of effect size (i.e., Cohen's D) was omitted because of concerns raised within the quantitative literature about the reliability of effect size measures when computing the differences between paired samples (Dunlop. Cortina, Vaslow, & Burke, 1996).

Qualitative Findings

There were four aspects of self-efficacy information in the CWE30 curriculum: feedback (including three types of generic assessment: diagnostic, formative, and summative), modelling, reduction of emotional arousal, and performance. Feedback was a strongly represented source of self-efficacy information in the CWE30 curriculum. Students received written or verbal evaluations of all of their assignments as well as evaluations on their work performance from their employers. However, there is a significant difference between the standard practice of providing students with grades and the encouraging feedback described in SCT (Bandura, 1986). That is, simply giving a student a letter or percentage grade is not the same as verbally explaining to them how they performed one aspect of a task well and how they could improve in another. Bandura (1986), as noted in Chapter 2, differentiated these two types of feedback as either providing knowledge of how a skill could be improved or a competence-contingent reward, in which case the reward was only acquired if performance was satisfactory. The former

offers the person a thorough understanding of their abilities and the latter simply provides them with a reward in exchange for properly executing a given behaviour. In this case, a stand-alone grade or percentage evaluation would be more similar to a competency-contingent reward for completing the given task without offering the student much in the way of information about how they did or did not excel and, thus, doing little to impact their self-efficacy. Because first hand observation of the evaluative practices in this CWE30 classroom was not possible, the CWE30 curriculum (Saskatchewan Learning, 2002) was referenced.

According to Saskatchewan Learning (2002), diagnostic evaluation is expected to take place at the beginning of the semester in order to establish prior learning. However, as the instructor mentioned, low student attendance and the lack of pre-requisites for CWE30 made it difficult for her to customize the class in this way. The teacher felt that she could not assign projects to the students that went beyond standardized worksheets. The course worksheets had instructions that could be easily disseminated to a student who needed to catch up or who had little pre-existing knowledge of the subject area.

Formative evaluation is meant to happen throughout the semester to help inform the student and teacher as to the progress the student is making. Three reminder forms and a portfolio checklist were included in the students' assignments, likely intended to help the students keep track of their remaining responsibilities. More personalized formative feedback could not be observed without the researcher sitting in on the class or collecting marked assignments.

Finally, summative evaluation takes the form of final grades and teacher and employer evaluations. Overall, given the researcher's inability to observe these activities, it is impossible to say for sure whether the students were receiving positive and encouraging feedback or

negative, vague, or otherwise unhelpful comments. However, it is inferred from the teacher's description of the assignment process, and her difficulties balancing students who need to catch up with those who are ready for more, that these practices could be improved to better encourage the development of self-efficacy.

The modelling of career exploration was mainly the responsibility of the instructor. Again, being unable to observe her teaching style and the sorts of modelling activities she may have included makes a thorough analysis difficult. However, many of the worksheets the students completed would have offered them a kind of modelling experience as well. Most work that the students completed was preceded by some kind of sample. For instance, on an assignment entitled "My Employability Skills," where students were asked to list a skill that they had and an example of how they had honed it, half of the first page was dedicated to an explanation of three basic employability skills (i.e., communication, a positive attitude, and working well with others) and how to offer examples, such as in an interview, to support them. The fact that written examples, or modelling, can have a similar impact to real life models is supported by Bandura, who wrote, "By drawing on conceptions of behaviour portrayed in words and images, observers can transcend the bounds of their immediate environment" (1986, p. 47). That is, observational learning can theoretically take place through exposure to the equivalent of written or drawn forms of modelling as well as in-person.

The reduction of emotional arousal, particularly in the form of anxiety, is a third contributor to the development of self-efficacy. Though students were not explicitly asked about this, responses regarding confidence and whether they found career exploration challenging did shed some light on their anxiety levels. Dave was very animated during his interview, particularly when explaining how his confidence was impacted by his placement: "I don't really

know how exactly to explain it. But - but it makes you... yeah the only word is really more confident." He had already applied for a job with the company he had been working with at the time of the interview and seemed exuberant about the possibility of employment. It was clear that he had little to no anxiety about starting work in the area he had been employed in. On the contrary, a few students in CWE30 expressed anxiety about career exploration and decision-making more generally both at the beginning and end of the term. Examples of their motivation questionnaire responses at the end of the semester were, "It means I have to grow up and I'm honestly scared," "It's hard to pick [a career] because how will you know if you made the wrong choice," and, "[Career exploration is] challenging because it's a choice that you will make pretty much the rest of your life." While these responses represented only three students' feelings, it is clear that by the end of term, their feelings of anxiety about career exploration were not satisfactorily reduced.

The fourth and most powerful source of self-efficacy information is performance. This is likely the best met self-efficacy supporter within the CWE30 curriculum. Similar to the competency feature of SDT, performance is the actual implementation of a learned skill and self-efficacy information is gleaned from the positivity or negativity of one's achievement within that domain. In CWE30, not only did students have to perform to a particular standard on their classroom assignments related to career exploration, they were also given the opportunity to experience the process of acquiring employment using what they had learned. They submitted multiple drafts of their resume and cover letters to their instructor for critique, and then had to use those documents to secure an interview and ultimately a work placement. It should be noted, however, that students typically do not truly compete for these positions, as they had been secured by the teacher, and the hiring process was more of a learning experience for the students.

Nonetheless, this was an opportunity for students to have a positive performance experience related to looking for a job, and it is likely to have positively impacted self-efficacy.

Loosely related to the two foundational theories of the present case study, one of the most consistent findings within the qualitative data was students` enthusiasm about experiential learning. Dave was enthusiastic that "You could actually, you know, do stuff by hand and you actually got to be involved in working with other people instead of just, I don't know, doing useless math tests in class." The motivation questionnaires were filled with enthusiasm for the CWE30 placements, containing comments such as, "It is very interesting, gets you out in the field,", "It's very exciting, you get to work in a field of your choice," "I wanted to see what it is like out on the job for the first time," and "It helps me achieve the career I would like to do and is very interesting because I get to go out and work." Speaking to the importance of exposure to a variety of careers and skill sets, students also wrote, "Yeah, it opens you to jobs you never knew existed and it gives you more options on what you want your career to be," "I learn things I haven't before. I get closer to finding out more about who I am (skills/interests) and what I want to do," and, "It was very important and valuable to me because I got to try out different careers in the same field. It helped me narrow down my options of my future careers." One student was particularly reflective about the value of his/her experience, writing, "People will find many reasons or sources of information on a job but never experience the actual work field but yet judge the field. With this class you are able to try a few different potential career options." All in all, students seemed to be very appreciative of the hands-on experiences offered by CWE30, and most emphasized the value of these experiences over the rest of the coursework.

Summary of Findings

Overall, though there were some unforeseen obstacles to data collection, considerable

support for the self-efficacy and motivation inspiring possibilities of CWE30 was found. The statistical findings from the CDMSE-SF analyses showed that students experienced significant increases in career decision-making self-efficacy from the beginning to the end of the term. Further, qualitative support of the course's positive impact was found via the interview and motivation questionnaire. It was surmised that student experiences of competency and positive performance experiences were the two best integrated encouragers of intrinsic motivation and self-efficacy, respectively, as related to the SDT and SCT models. The least incorporated factors linked to motivation were relatedness and autonomy, as students were often absent from class, assignments were very individually focused, and choices were limited in terms of both placement and assignment types. A feature of the self-efficacy model that was noted as having not been entirely met was a reduction in emotional arousal, as a few students reported either more or a similar amount of anxiety regarding career exploration at the end of the semester. Modelling and feedback, though likely present in the classroom, were difficult to properly assess given the indirect nature of the researcher's observations. Finally, most students agreed that the experiential component of CWE30 offered the most value and excitement within the curriculum. On the whole, there seemed to be many features of CWE30 that affected students' career decision-making self-efficacy and intrinsic motivation positively, as well as room for improvement in terms of curriculum implementation.

CHAPTER 5
DISCUSSION

In this chapter findings are discussed in terms of their relevance and contribution to the literature reviewed in Chapter 2. Further, implications for the implementation of the Career and Work Exploration curriculum are identified. Finally, shortcomings and strengths of the present study and suggestions for future research conclude the chapter.

Research Connections

Two models were described at the outset of this paper as the overarching lenses through which this research was conducted: Self-Determination Theory (Deci & Ryan, 2002) and Social Cognitive Theory (Bandura, 1977; 1986). In this section, the findings will be discussed in relation to these theories.

The Relationship between Motivation and CWE30

The exploration of motivation in CWE30 was complicated from the start by the fact that CWE30 is an elective course. It was anticipated that students would be more intrinsically motivated about career exploration than the average adolescent. This seemed to be verified by the fact that most students responded to the question "Why did you decide to take Career and Work Exploration 30?" with comments such as, "I wanted to explore options in my desired field," and, "I wanted to know more about different careers and the experience within." Only a couple of responses sounded similar to Ryan and Deci's (2002) descriptions of identified (i.e., knowing that an activity is important, but not why) or integrated (i.e., accepting others' values of a behaviour as your own) motivation, such as "Important just because, I guess" and "It's hard to pick what you wanna do but you know you have to." A number of motivation encouraging and discouraging features of CWE30 were examined.

Many features of the CWE30 curriculum were identified that could be improved in order

to be more supportive of the development and encouragement of intrinsic motivation. For instance, it seemed that autonomy was not consistently encouraged by either the assignment structure or the placement selection process. As explained by Deci (2004), even though intrinsic motivation towards human growth and interest is a natural characteristic, an appropriately conducive environment is necessary to encourage its development. Circumstances such as placement availability, workplace hazards, and restricted access made it difficult for students like Alexis to get the experience that they wanted. All assignments appeared to be mandatory and only one was described as offering an alternative method of completion. This was in line with the instructor's comments that student truancy and uncertain levels of previous knowledge required her to assign tasks that necessitated little teacher-student interaction to complete. It is likely that the added step of monitoring which of a number of assignments students were completing and assisting them with variations of a task would have taken up more of the instructor's resources than possible given her responsibility for catching up students who had missed class and fallen behind. Regarding placements, the teacher's responsibility for securing placements in a short span of time likely made it difficult for her to fulfil every student's desires in terms of their work experience. Consequently, student input and classroom/group cohesion was neglected as a result of these issues, directly contrasting the considerations of the Kerner et al. (2012) intervention that were credited for its effectiveness.

Other aspects of this CWE30 class seemed conducive to intrinsic motivation. While some students were unable to get into the placement of their choice, an unfortunate consequence of the system that is in place, students did seem to be able to choose from a variety of career areas. This contrasted positively with the findings of Benjamin (2009), who described an intentional difference in the career options students were exposed to depending on their socio-economic

status. It sets a strong example for other Canadian high schools insofar as allowing students the freedom to explore multiple directions. Further, it was supportive of student autonomy, at least *prima facie.* Also, the majority of student follow-up responses on the motivation questionnaire supported that they remained intrinsically motivated about career exploration. Even those who had complaints about the implementation of the curriculum seemed to see the value in continuing their exploration, saying, "I like looking at different jobs and occupations" and "You got to figure out what you don't like/want to do before you figure out what you want to do." This may be in part because of the availability of competency building experiences (Deci & Ryan, 2002), particularly through the placements. Facilitating these inquisitive urges is paramount to making sure that students are prepared for a potentially unpredictable job market (Hiebert, 2010).

The Relationship between Self-Efficacy and CWE30

The experiential focus of the CWE30 course put self-efficacy, a characteristic that has shown to be highly malleable to experience, at the centre of interest for this case study. To review, self-efficacy is described as confidence in one's ability to perform a task or behaviour and is established through four sources of information: feedback, performance, emotional or physical response to a task, and modelling (Bandura, 2012a). Thus, it was anticipated that CWE30, as an experiential-based career education course, would offer students 1) consistent feedback on their career exploration abilities in the classroom; 2) an opportunity to have an authentic job-seeking experience; 3) gradual exposure to career search procedures that could reduce decision-making anxiety; and 4) the teacher as a model of positive exploration behaviours. The self-efficacy promoting features of CWE30 were examined both quantitatively and qualitatively. Changes in self-efficacy were evaluated through the CDMSE-SF and the potential contributors to the prospective relationship were established through assignments and

student and teacher interviews.

First and foremost, the results of the CDMSE-SF supported a relationship between positive changes in students' career decision-making self-efficacy and completion of the CWE30 class. This is in line with previous findings by Betz and Schifano (2000) who found that female students who were interested in typically male-dominated career paths (i.e., related to building, repair, and construction) but who lacked confidence in their related skills were able to increase their self-efficacy in this area through gradual exposure to related tasks of increasing difficulty. Though gradation of task difficulty in the CWE30 classroom did not seem to occur as often as would be ideal, besides in the aforementioned interview assignment, performing career exploration tasks in general may have played a role in increasing students' self-efficacy. More broadly, the results of this case study also appear to support the purported influence of the four sources of self-efficacy information in increasing self-efficacy (Bandura, 1977; 1986). The CWE30 curriculum seemed to include activities and practices that matched up fairly well with Bandura's four-source self-efficacy model and, in turn, it was found that career decision-making self-efficacy did increase. Finally, the outcome of this research also supports Betz's findings that self-efficacy is a pragmatic and malleable characteristic that can be altered relatively easily in an intervention-like setting (2001).

Modelling was another factor proposed by Bandura (e.g., 1977) to encourage self-efficacy that was reinforced by the present findings. Much of Bandura's early modelling work suggested that exposure to models either in person (Bandura, Ross, & Ross, 1961; Bandura, Ross, & Ross, 1963) or as visual or written representations (Bandura, 1986) can serve to increase participants' self-efficacy and likelihood of engaging in a similar task. Further, Speight and colleagues (1995) found that grade nine students who were given the opportunity to perform

science-related tasks and spent time with professionals from the medical field later reported increases in self-efficacy as related to pursuing a medical career. Similarly, in CWE30, assignment examples were commonly provided, giving students a written model of how to successfully perform career related tasks. Though teacher modelling of career exploration could not be assessed, students were given the opportunity to work in direct contact with a model in their field of interest during their placements. Increases in career decision-making self-efficacy, both in general and career-specifically, as indicated in Dave's interview responses regarding increased confidence as a result of his placement, support previous findings in this area.

Of note, however, is that students' scores before taking CWE30 were in a high range according to the CDMSE-SF manual. They fell in the *Good Confidence* range (3.5-5), though on the lower end of it (3.72), during the first week of CWE30. Because all of the students had taken at least one career education course previously, this could indicate that, while there does seem to be a relationship between CWE30 and self-efficacy, students may have been more receptive or responsive to this class earlier in their career education or if the class had more strongly incorporated the four sources. For instance, it was determined that emotional arousal was a comparatively unaffected area of self-efficacy. Three students mentioned high levels of anxiety related to the job search on their motivation questionnaires at the end of the semester. These students' preoccupation with the permanence of career decisions, as indicated in their motivation questionnaire responses (e.g., "It's hard to pick [a career] because how will you know if you made the wrong choice"), suggests the need for more explicit discussion of career adaptability and resilience; an emphasis supported by the current trend of people traversing multiple career paths throughout the lifespan (Hiebert, 2010). Further, it was difficult to ascertain the kinds of feedback, performance opportunities, and modelling that the students were exposed to without

in-class observation. Nonetheless, there did appear to be a positive relationship between course completion and career decision-making self-efficacy, even if the exact administration of the course and source of the relationship cannot be determined.

Strengths and Limitations

The primary strength of the present research was that the case study methodology offered an *in vivo* look at an already implemented curriculum that could encourage the development of self-efficacy and intrinsic motivation in the area of career exploration. In a society that is increasingly emphasizing the importance of evidence-based practice in schools as well as counselling, research that focuses on the potential relationship between a particular class or intervention and increases in relevant skills and tendencies is extremely valuable. An unforeseen strength of this study was participant recruitment and retention. All of the students who were present in the first class consented to participating and only one ended up dropping the class before the second round of testing. Greater attrition was anticipated at the outset of the study as students were entering their final year of study and high workloads combined with CWE30's elective status made drop-out a common occurrence according to the teacher. Related to this, the number of the students who took the class also exceeded researcher expectations. In total, data from 14 students were included in the quantitative analyses, allowing sufficient statistical power for the dependent t-test.

On the other hand, there were many ways in which this case study could be improved. First and foremost there is the issue of the self-selectivity bias inherent in testing participants enrolled in an elective class. That is, students choosing to take the class may speak to their already high prioritization of career exploration and knowledge, a possibility that was supported by the unusually high baseline level of career decision-making self-efficacy found in the first

round of CDMSE-SF testing. Further support was provided by students' motivation questionnaire responses to the question asking their reason for taking CWE30, as most seemed intrinsically motivated. A second limitation was the lack of in-class observation. The inclusion of this data would have been invaluable. Another shortcoming, and potential confound, is that students could have participated in a variety of career-related activities over the course of the school year that could have impacted their self-efficacy and motivation. Being in grade 12, it is likely that career exploration and post-secondary research was at the forefront of these students' minds, and they may have been engaging in related activities external to CWE30. Similar to this, previous job shadowing or work experience was not effectively gauged. Students did not tend to describe their previous experience in detail and experiences varied considerably, resulting in the researcher only indicating a yes/no response in the statistical analyses. A richer measure of these experiences would have been useful. Another area for improvement would be a more representative measure of student engagement. Class attendance does not necessarily indicate engagement. For instance, placement attendance was not taken and permission to track assignment completion and student grades was not granted.

Implications for Practice

While the data support a positive relationship between CWE30, motivation, and career decision-making self-efficacy, there are a number of ways in which the implementation of this course could likely be improved. The main motivation for these suggestions is the students' complaints about the tedium and redundancy of the assignments as well as the instructor's concerns about students' engagement as a result of being at different stages in career development. One seemingly simple solution would be to turn the Career and Work Exploration (CWE) classes into a pre-requisite based sequence. Students would need to take CWE10 to enter

CWE20, and so on. However, as noted earlier, students are often pushed into taking CWE30 to acquire last-minute grade 12 credits and, with enrolment numbers already slipping, this might end in the loss of CWE altogether. An alternative method of customizing the advancement of the class is suggested by Reeve (2002), who recommends simply surveying the class to see what areas they are most interested in, and where their knowledge is lacking. Options could be offered for each assignment type, perhaps increasing in complexity or specificity to a particular career path depending on where the students felt they were in terms of their career development. An example is students with no career options in mind completing skill and value inventories while more advanced students research post-secondary training in their field of interest. These options would serve the dual purpose of encouraging student autonomy (Deci & Ryan, 2009), as students would feel that they had a choice as to what material they learn, and making sure that students who had completed previous CWE courses did not end up feeling that the classwork was pointless and repetitive.

More broadly, there are many suggestions for classroom structure to ensure that it is autonomy-supportive and informative rather than controlling and therefore limiting of intrinsic motivation (Ryan & Deci, 2009). Because in class observation was not possible, these suggestions are intended generally and are not based on the instructor's teaching practices. Ryan and Deci (2009) criticize the modern classroom as a place where score-based evaluation of students' performance and the ability of the teacher to subdue disruptive students has taken priority over learning. They argue that this classroom structure, which they refer to as *controlling*, limits students' autonomy and competency experiences, because test and assignment scores are the only means through which they can demonstrate their knowledge. This is also thought to decrease the student's sense of relatedness as the means of evaluation are imposed

without regard for the student's proficiencies or learning style. In these contexts, the instructor focuses his or her efforts on maintaining order. Standard evaluation, rewards, criticism, the use of directive language (e.g., "should" and "have to"), and traditional, percentage or point-based evaluation systems are typically present. Students do not feel that their input is valued and the lack of encouraging feedback, which is related to both motivation and self-efficacy, reduces students' enthusiasm to continue performing the given task. Thus, a supportive CWE30 classroom could be one in which student input regarding the types of assignments and their effectiveness was acquired (e.g., Kerner et al., 2012); relatedness in the classroom was increased through student engagement in group work and classroom discussion; and where verbal feedback and qualitative evaluations from the teacher replaced traditional grading. Reeves (2002) further suggests helping to make non-intrinsically interesting tasks more appealing through providing meaningful rationale for completing it and acceptance of negative feelings towards tedious tasks. For instance, a student who was struggling to get motivated to complete the Workplace Hazardous Materials Information System (WHMIS) handbook may benefit from a discussion about the many workplaces in which this training is required after the acknowledgement that the information can seem arduous to learn.

Research has also shown that many teachers have a difficult time accurately assessing student engagement (Reeve, 2002). Reeve suggests the monitoring of attention, effort, participation, persistence, interest, enjoyment, enthusiasm, and anxiety or frustration levels to ascertain students' interest. Many of these suggestions, such as persistence, participation, and emotions such as anxiety or enjoyment, align with the self-efficacy research reviewed thus far. The monitoring of approach and avoidance behaviours in the classroom could serve as basic indicators of student engagement and self-efficacy (Bandura, 1977). If students are showing

avoidance of particular tasks, they are possibly feeling a lack of self-efficacy about performing them. If these avoidance behaviours persist, they are additionally losing the opportunity to practice and increase their self-efficacy in these areas. Naturally, motivation should also be considered as a possible determinant of student engagement, but the self-efficacy model offers an alternative perspective from which to address such issues.

On the whole, however, one of the most pressing implications of this case study is that there are some things within the CWE30 curriculum that are working. Career decision-making self-efficacy and motivation seemed to have a positive relationship with CWE30 completion. Though suggestions for improvement have been discussed, it must be emphasized that the combination of the classroom and experiential components of CWE30 is both appreciated by the students and likely contributing to the development of career exploration skills in these adolescents.

Future Directions

The presented case study opens up many avenues for further investigation. The most basic next step would be a study which compared CDMSE-SF and motivation questionnaire data from students who did and did not take CWE30. This would offer a clearer picture of the potential impact CWE30 is having on students' feelings about career exploration. Differences in students who selected career-related versus job-like placements, as distinguished in Chapter 4 by the teacher, and those who already had part-time jobs would also be useful variables in future research.

Students also reported changes in job-specific self-efficacy that could be more thoroughly examined in future studies. Dave specifically reported an increase in confidence related to being employed in his field of interest. Because the experiential component of CWE30

was the aspect of the course most consistently lauded by the students, it would be very worthwhile to examine the impact these experiences have on students' confidence about pursuing specific careers.

Future research would also possibly benefit from the inclusion of a younger sample. Studies have shown that occupational ambitions tend to be surprisingly stable from grade eight through to grade twelve (Brown & Lent, 2006). It may therefore be valuable to see the potential impact of CWE training on students who are at an earlier stage in their career development.

A final comparison of interest would be to utilize a measure of career exploration activity and examine the relationship between reported career decision-making self-efficacy and actual exploration activity. This research would follow the example of Hsieh and Schallert (2008) who examined the relationship between self-efficacy and university students' achievement in foreign language classes, and Bembetnutty and White (2012), who focused on the homework practices and final grades of college students. Given that self-efficacy has been found to play a role in performance in a variety of areas, further research as to the specific outcomes in terms of exploration activities as they relate to career decision-making self-efficacy would be a valuable support in garnering further interest in CWE programming.

Conclusion

The core message within the findings of this case study is that there seems to be a positive relationship between CWE30, intrinsic motivation, and career decision-making self-efficacy. While it seems that many students are selecting CWE30 because they are already intrinsically motivated by career exploration, career decision-making self-efficacy was shown to significantly increase from the beginning to the end of the semester. Overall, this supports much of the previous research related to SCT (Bandura, 1977; 1986) and SDT (Deci & Ryan, 1983;

1985) as well as Taylor and Betz's (1983; Betz & Taylor, 1996) work related to career decision-making self-efficacy.

Given this overall finding, a theoretical model of the connections between these three areas of research can be tentatively proposed. As can be seen in Figure 1, a connection between

Figure 5.1

Connections between SDT, SCT, and Career Exploration

SDT and SCT is found throughout the focal points of each model. Arguably, competence experiences and positive performance are nearly identical experiential concepts while feedback and modelling serve very similar, influence-based purposes (i.e., Bandura suggests that modelling can replace feedback insofar as encouraging particular behaviours; 1986). The connection between relatedness and emotional arousal, while more tenuous, is the underlying emotional feature of both: the concept of relatedness is described as the feeling that you belong or that your progress is cared about by others. An example of emotional arousal often given in SCT is the anxiety or excitement aroused by partaking in a given activity. Thus, though not the

same, the impact of the emotional aspect of the learning or performing environment (i.e., whether it is supportive and your feelings of anxiety are reduced) is common between the theories. Finally, the concept of autonomy, or meaningful choice, is unique to SDT, but seems to influence career exploration in an equally important way. On the whole. These factors seem to impact career exploration in a significant and interrelated way that could offer a conceptual framework for future research.

A final prominent finding was that students were highly enthusiastic about the inclusion of experiential learning opportunities within the career education curriculum. Student responses resounded with excitement and positivity about the experiences they were anticipating or reflecting on from their work placements. Experiential learning seemed to motivate students and was judged as practical and useful almost unanimously.

The advent of the internet places academic and occupational achievement more firmly in the hands of adolescents than ever (Lent & Brown, 2006). Adolescents in much of the developed world will have access to an abundance of career information and must be able to negotiate it effectively and confidently. Courses like CWE30 can help students develop skills and self-efficacy in this area. Though there is a great deal of work that could be done in the pursuit of the creation of an ideal career education curriculum, and a perfect fit for all students may be impossible, CWE30 seems to offer a strong base model for curriculum developers and educators to work from. It is hoped that future research will continue to examine the ways in which we can improve career education and the inclusion of experiential learning opportunities seems to be a highly effective way to do so.

References

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review, 84*(2), 191-215.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: Freeman.

Bandura, A. (2012a). On the functional properties of perceived self-efficacy revisited. *Journal of Management, 38*(9), 9-44. doi: 10.1177/0149206311410606

Bandura, A. (2012b). Social cognitive theory. In P.A.M. Van Lange, A.W. Kruglanski, & E.T. Higgens (Eds.) *Handbook of theories of social psychology: Volume one.* London: Sage.

Bandura, A., Jeffery, R.W., & Gajdos, E. (1975). Generalizing change through participant modeling with self-directed mastery. *Behaviour Research & Therapy, 13,* 141-152.

Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggression through the imitation of aggressive models. *Journal of Abnormal and Social Psychology, 63*(3), 575–582. doi:10.1037/h0045925

Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. *Journal of Abnormal and Social Psychology, 66* (1), 3-11. doi:10.1037/h0048687

Bardick, A.D., Bernes, K.B., Magnusson, K.C. & Witko, K.D. (2004). Junior high career planning: What students want. *Canadian Journal of Counselling, 38*(2), 104-117.

Bembenutty, H., & White, M.C. (2012). Academic performance and satisfaction with homework completion among college students. *Learning and Individual Differences, 24*, 83-88. doi: http://dx.doi.org/10.1016/j.lindif.2012.10.013

Benjamin, A. (2009). Double bagged or fries with that: Adolescents' perceptions of the job

market in four urban Vancouver secondary schools. *The Alberta Journal of Educational Research, 55*(2), 143-156.

Betz, N.E. (1992). Counseling uses of career self-efficacy theory. *Career Development Quarterly, 41*(1), 22-27.

Betz, N.E., (2001). Career Self-Efficacy. In T.L. Leong & A. Barak (Eds.) *Contemporary models in vocational psychology.* New York, NY: Routledge.

Betz, N.E., Klein, K.L., & Taylor, K.M. (1996). Evaluation of a short form of the career decision-making self-efficacy scale. *Journal of Career Assessment, 4*(1), 47-57. doi: 10.1177/106907279600400103

Betz, N.E., & Luzzo, D.A. (1996). Career assessment and the career decision-making self-efficacy scale. *Journal of Career Assessment, 4*(4), 413-428. doi: 10.1177/106907279600400405

Betz, N.E., & Schifano, R.S. (2000). Evaluation of an intervention to increase realistic self-efficacy and interests in college women. *Journal of Vocational Behaviour, 56*, 35-52. doi:10.1006/jvbe.1999.1690

Betz, N.E., &Taylor, K.M. (1996). Evaluation of the career decision-making self-efficacy scale. *Journal of Career Assessment, 4*(1), 47-57. doi: 10.1177/106907279600400103

Betz, N.E., & Taylor, K.M. (2012). Career decision self-efficacy scale manual and sampler set. Melno Park, CA: Mind Garden.

Blustein, D.L. (1989). The role of goal instability and career self-efficacy in the career exploration process. *Journal of Vocational Behaviour, 35*, 194-203.

Canella-Malone, H.I., Fleming, C., Chung, Y., Wheeler, G.M., Basbagill, A.R., & Singh, A.H. (2011). Teaching daily living skills to seven individuals with severe intellectual

disabilities: A comparison of video prompting and video modelling. *Journal of Positive Behavior Interventions, 13*(3), 144-153. doi: 10.1177/1098300710366593

Crites, J.O. (1978). *Career Maturity Inventory*. Monterey, CA: CTB/McGraw Hill.

Deci, E.L. (2004). Self-determination theory and basic need satisfaction: Understanding human development in positive psychology. *Ricerche di Psicologia, 27*(1), 23-40.

Deci, E.L., & Ryan R. M. (1983). The basis of self determination: Intrinsic motivation and integrated internalizations. *Academic Psychology Bulletin, 5*(1), 21-29.

Deci, E.L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determinaton in human behaviour*. New York, NY: Plenum

Deci, E.L., & Ryan, R. M. (2012). Self-determination theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology: Vol. 1* (pp. 416-437). Thousand Oaks, CA: Sage.

Deci, E.L., & Vansteenkiste, M. (2004). Self-determination theory and basic need satisfaction: Understanding human development in positive psychology. *Ricerche di Psichologia, 27,* 17–34.

Duchesne, S., Mercier, A., & Ratelle, C.F. (2012). Vocational exploration in middle school: Motivational characteristics of students and perceptions of the learning climate. *Canadian Journal of Counselling and Psychotherapy, 46*(4), 367-386.

Dunlop, W. P., Cortina, J. M., Vaslow, J. B., & Burke, M. J. (1996). Meta-analysis of experiments with matched groups or repeated measures designs. *Psychological Methods, 1,* 170-177.

Fukuyama, M.A., Probert, B.S., Neimeyer, G.J., Nevill, D.D., & Metzler, A.E. (1988). Effects of DISCOVER on career self-efficacy and decision making of undergraduates. *The Career Development Quarterly, 37*(1), 56-62.

Gibbons, M.M., Borders, L.D., Wiles, M.E., Stephan, J.B., & Davis, P.E. (2006). Career and

college planning needs of ninth graders – as reported by ninth graders. *Professional School Counselling, 10*(2), 168-178.

Hiebert, B. (2010). *Comprehensive guidance and counseling in the schools: Career-life planning for all.* Keynote presentation to the annual conference of the Portuguese Association for Career Development. Minho, Portugal.

Hsieh, P.P., & Schallert, D.L. (2008). Implications from self-efficacy and attribution theories for understanding of undergraduates' motivation in a foreign language course. *Contemporary Educational Psychology, 33*, 513-532. doi:10.1016/j.cedpsych.2008.01.003

Johnson, Onwuegbuzie, & Turner (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research, 1* (2), 112-133.

Kerner, E.A. (2011). *The motivate to explore career intervention: Design and investigation of a career counselling group for disengaged adolescent males* (Doctoral dissertation). Retrieved from Proquest Dissertations & Theses. NR78785.

Kerner, E.A., Fitzpatrick, M.R., Rozworska, K.A., & Hutman, H. (2012). Mechanisms of change in a group career exploration intervention: The case of "Bryan". *Canadian Journal of Counselling and Psychotherapy, 46*(2), 141-160.

Lent, R.W., Brown, S.D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behaviour, 45*, 79-122.

Luzzo, D.A. & Taylor, M. (1994). Effects of verbal persuasion on the career self-efficacy of college freshmen. *California Association for Counseling and Development Journal, 14*, 31-34.

Multon, K.D., Brown, S.D., and Lent, R.W. (1991). Relation of self-efficacy beliefs to academic

outcomes: A meta-analytic investigation. *Journal of Counselling Psychology, 38*(1), 30-38.

Odluyurt, S. (2013). A comparison of the effects of direct modeling and video modeling provided by peers to students with autism who are attending in rural play teaching in an inclusive setting. *Educational Sciences: Theory & Practice, 13*(1). 536-540.

Osipow, S. H., Camey, C. G., Winer, J. L., Yanico, B., & Koschier, M (1980). *The Career Decision Scale* (3rd ed.). Columbus, OH: Marathon Consulting and Press.

Pajares, F., & Urdan, T. (Eds.). (2006). *Self-efficacy beliefs of adolescents.* Greenwich, CT: Information Age Publishing.

Reeve, J.M. (2002). Self-determination theory applied to educational settings. In E.L. Deci & R.M. Ryan (Eds.), *Handbook of self-determination research* (pp. 183-203). Rochester, NY: University of Rochester Press.

Roest, A., & Magnusson, K. (2005). IMPACT: A clearinghouse of information on the efficacy of career development strategies. *NATCON papers*.

Ryan, R. M., & Deci, E. L. (2002). An overview of self-determination theory. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3-33). Rochester, NY: University of Rochester Press.

Ryan, R.M, & Deci, E.L. (2009). In K.R. Wentzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 171-195). London, UK: Routledge.

Saskatchewan Learning (2002). *Career and work exploration 10, 20, A30, B30 curriculum guide: A practical and applied art.*

Saskatchewan Public Schools (n.d.). Career and Work Exploration 10, 20, 30. *Career and work education programs.*

http://www.spsd.sk.ca/schoolsprograms/highschoolprograms/workeducation.html

Schifano & Betz (2000). Evaluation of an intervention to increase realistic self-efficacy in college women. *Journal of Vocational Behaviour, 56*, 35-52. doi:10.1006/jvbe.1999.1690,

Speight, J.D., Rosenthal, K.S., Jones, B.J., & Gastenveld, P.M. (1995). Medcamp's effect on junior high school students' medical career self-efficacy. *The Career Development Quarterly, 43*(3), 285-295.

Taylor, K.M., & Betz, N.E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behaviour, 22*, 63-81.

Usinger, J., & Smith, M. (2010). Career development in the context of self-construction during adolescence. *Journal of Vocational Behaviour, 76*, 580-591. doi:10.1016/j.jvb.2010.01.010

Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K.M, & Deci, E.L. (2004). Motivating learning, performance, and persistence: The synergistic effects of intrinsic goal contents and autonomy-supportive contexts. *Journal of personality and social psychology, 87*(2), 246-260.

Whiston, S.C., Tai, W.L., Rahardja, D. & Eder, K. (2011). School counseling outcome: A meta-analytic examination of interventions. *Journal of Counselling & Development, 89*, 37-55.

Yin, R.K. (2014). *Case study research: Designs and methods* (5th ed.). Washington, D.C.: Sage.

APPENDIX A

Parent Information Letter, Consent Form, and Transcript Release

Dear parent/guardian,

My name is Lisa Gaylor, and I'm a graduate student from the U of S. I'm planning to conduct research in your son/daughter's Career and Work Exploration 30 class.

If you daughter/son consents to participating in this study, they will be asked to fill out two questionnaires during class time at the beginning and end of the semester. The first one asks about whether the student feels confident in tasks related to career exploration and decision-making, like choosing classes and picking jobs that interest them. The second one asks about motivation, or why the student chose to take the Career and Work Exploration 30 class.

Students will also be asked if they are okay with having their attendance in this class monitored. Finally, I will also ask them if I can contact them in June about participating in an interview about their Career and Work Exploration 30 class.

The students can decide to stop participating at any time during the study and will not be penalized in any way for quitting. This study is not tied in any way to your child's grades or school requirements. There are no known risks to participating in this study.

This research has been ethically approved by the University of Saskatchewan's ethics board and the Saskatchewan Public School District. You can contact myself, my research supervisor Dr. Jennifer Nicol, or the university research board with any questions or concerns. If you do not want your child to participate in this study or you would like access to the results of this research, please contact me (Lisa Gaylor) directly.

Thank you for your time,

Lisa Gaylor
llg379@mail.usask.ca
306-880-0332

Research Supervisor:
Dr. Jennifer Nicol
jaj.nicol@usask.ca

Ethics Board:
The Research Ethics Board,
ethics.office@usask.ca
306-966-2975

You are invited to participate in a research study entitled "Experience-Infused High School Career Education and Its Relation to Self-Efficacy and Motivation". Please read this form carefully, and feel free to ask any questions you might have about the study.

Student-Researcher: Lisa Gaylor**,** Department of School and Counselling Psychology, llg379@mail.usask.ca.

Supervisor: Dr. Jennifer Nicol**,** Department of Educational Psychology and Special Education, jaj.nicol@usask.ca

Purpose and Procedure: The primary purpose of the research is to look at experience-based learning in high school career education. If you agree to participate, you will be asked to fill out two questionnaires today and again at the end of the semester. One asks questions about your motivation to do career exploration and the other asks about how confident you feel in completing tasks related to career exploration. These questionnaires are expected to take 20-30 minutes during class. Participation can also mean giving me permission to look at how many Career and Work Exploration 30 (CWE30) classes you miss during the semester. Finally, you can also agree to be contacted at the end of the semester for an interview about your experience in CWE30.

Risks: There are no foreseeable risks to participating in this study. You may choose to complete as much or as little of the questionnaires as you wish. At the end of the study you will be given a chance to ask any further questions that you might have.

Confidentiality: Your data will be kept completely confidential. Your name will not be connected to any of the data used in future projects or publications. If you choose to participate in an interview, you will have the chance to review your transcript before your quotations are used. The data and consent forms will be stored securely until the research is finished. Because this data will possibly be used for publication in an academic journal and/or presented at a professional conference, the data will be stored for a minimum of five years after the study ends in a secure location by the research supervisor**.** When the data are no longer required, they will be destroyed beyond recovery.

Right to withdraw: You may withdraw from the study for any reason without penalty of any sort. However, once the data has been combined, it is possible that some of the research will have already been shared and it may not be possible to withdraw your data.

Questions: If you have any questions concerning the study, please feel free to ask at any point. You are also free to contact the researchers at the numbers provided above if you have questions at a later time. This study was reviewed and approved on ethical grounds by the Behavioural Research Ethics Committee on ***[date of approval]***. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-

2975.You may obtain a copy of the results of the study by contacting the student-researcher or the supervisor.

Consent to Participate: I have read and understand the description of the research study provided above. I have been given the chance to ask questions and my questions have been answered satisfactorily. I agree to participate in the study described above, understanding that I may withdraw my consent to participate at any time. A copy of this consent form has been given to me for my records.

There are several parts to this research. You can choose to participate in all, some or none of them. Please put a check mark beside "Yes" or "No" to show whether or not you agree to:

1. Participate in the surveys: Yes: ___ No: ___
2. Be contacted about participating in an interview in June: Yes: ___ No: ___

   ***If you said yes to question 2, please write your email address below:**

   _____
3. To have your CWE30 attendance reviewed: Yes: ___ No: ___

_____ _____

(Signature of Participant) (Date)

_____

(Signature of Researcher)

Transcript Release

Experience-Infused High School Career Education and Its Relation to Self-Efficacy and Motivation

I, _____, have reviewed the complete transcript of my personal interview in this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate. I acknowledge that the transcript accurately reflects what I said in my personal interview with [name of the researcher]. I hereby authorize the release of this transcript to [name of the researcher] to be used in the manner described in the Consent Form. I have received a copy of this Data/Transcript Release Form for my own records.

_____ _____

Name of Participant Date

_____ _____

Signature of Participant Signature of researcher

APPENDIX B

The Career Decision-Making Self-Efficacy Scale (Short Form)

Please provide the following information:

Name: _____

Date: _____

Age: ___

Gender (Please Circle): F M

Which (if any) Career and Work Exploration classes have you taken before this one? (i.e., Career and Work Exploration 9, 10, or 20)

_____

_____

Have you already decided on a career you would like to pursue after high school? (Please Circle): Yes No

If you answered 'Yes' above, have you done any volunteering or job-shadowing in the career area that you are interested in? If yes, please briefly state when, where, and the length of time you spent there.

_____

_____

INSTRUCTIONS: For each statement below, please read carefully and indicate how much confidence you have that you could accomplish each of these tasks by marking your answer according to the following 5- point continuum. Mark your answer by filling in the correct circle on the answer sheet.

Example:

Scale:

No Confidence at All	Very Little Confidence	Moderate Confidence	Much Confidence	Complete Confidence
1	2	3	4	5

How Much Confidence Do You Have That You Could:

	1	**2**	**3**	**4**	**5**
a. Summarize the skills you have developed in the jobs you have held?	□	□	□	□	□

If your response on the 5 point continuum was 5, "Complete Confidence", you would fill in the number 5 on the answer sheet.

Scale:

No Confidence at All	Very Little Confidence	Moderate Confidence	Much Confidence	Complete Confidence
1	2	3	4	5

How Much Confidence Do You Have That You Could:

	1	2	3	4	5
1. Use the internet to find information about occupations that interest you.	□	□	□	□	□
2. Select one class/major from a list of potential classes/majors you are considering.	□	□	□	□	□
3. Make a plan of your goals for the next five years.	□	□	□	□	□
4. Determine the steps to take if you are having academic trouble with an aspect of your chosen class/major.	□	□	□	□	□
5. Accurately assess your abilities.	□	□	□	□	□
6. Select one occupation from a list of potential occupations you are considering.	□	□	□	□	□
7. Determine the steps you need to take to successfully complete your chosen class/major.	□	□	□	□	□
8. Persistently work at your school or career goal even when you get frustrated.	□	□	□	□	□
9. Determine what your ideal job would be.	□	□	□	□	□
10. Find out the employment trends for an occupation you are considering.	□	□	□	□	□
11. Choose a career that will fit your preferred lifestyle.	□	□	□	□	□
12. Prepare a good resume.	□	□	□	□	□
13. Change classes/majors if you did not like your first choice.	□	□	□	□	□
14. Decide what you value most in an occupation.	□	□	□	□	□
15. Find out about the average yearly earnings of people in an occupation.	□	□	□	□	□
16. Make a career decision and then not worry whether it was right or wrong.	□	□	□	□	□

How Much Confidence Do You Have That You Could:

	1	2	3	4	5
17. Change occupations if you are not satisfied with the one you enter.	□	□	□	□	□
18. Figure out what you are and are not ready to sacrifice to achieve your career goals.	□	□	□	□	□
19. Talk with a person already employed in a field you are interested in.	□	□	□	□	□
20. Choose a class/major or career that will fit your interests.	□	□	□	□	□
21. Identify employers, firms, and institutions relevant to your career possibilities.	□	□	□	□	□
22. Define the type of lifestyle you would like to live.	□	□	□	□	□
23. Find information about graduate or professional schools.	□	□	□	□	□
24. Successfully manage the job interview process.	□	□	□	□	□
25. Identify some reasonable class/major or career alternatives if you are unable to get your first choice.	□	□	□	□	□

APPENDIX C

Motivation Questionnaire

Name: **Date:**

Motivation Questionnaire
Please answer the following questions in a sentence or two.

1. Why did you decide to take Career and Work Exploration 30? (e.g., because you needed the credit; because your parents want you to explore career options; because you wanted more information about jobs; etc.)

2. When you think about career exploration, does it seem motivating and interesting to you? Why or why not?

3. Would you say that career exploration is important or valuable to you? Why or why not?

4. When you think about career exploration, do you feel like it is demanding or challenging? Why or why not?

5. Do you like career exploration? Why or why not?
   (**Note**: If your response is something like "It's boring" or "It's the same thing every day", please explain what you think it is about career exploration specifically that makes it feel boring to you.)

6. People have many reasons for feeling like they do about career exploration activities. If you feel the above questions do not really allow you to describe your reason, please use the space below to tell me your own reasons.

APPENDIX D

Semi-Structured Interview Topics and Questions

Students:

Topic: Motivation

1) What made you want to take this class?

Topic: Self-efficacy

2) Did you know what you wanted to do as a career before you took this class?
3) How do you feel about doing this job now/Did your view of the job you were interested in change?

Topic: Practical Considerations

4) Which placement(s) did you get?
5) Were/Was these/this your top choice(s)?
6) What, if anything, would you change about CWE30?

Teacher:

Topic: Motivation

1) Why do you think students want to take this class?

Topic: Self-efficacy

2) How do you think the placements and/or class activities impact the students?

Topic: Practical Considerations

3) What, if anything, would you change about CWE30?