WHAT THEY NEED: DELIVERY OF CAREER DEVELOPMENT TO GRADE TWELVE STUDENTS

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Abstract

Rapidly changing social and economic conditions can impart significant challenges to high school career decisions. Recent career education initiatives have been structured to support this school-to-work and school-to-post-secondary education transition. The student needs assessment focus of this study allows a unique insight into the availability, delivery, and effectiveness of high school career programs. This research provides data from a nineteen-item, Comprehensive Career Needs Survey, administered to 888, Southern Alberta grade 12 students. The results profile the student responses to questions on career plans after high school, the meaning of occupation and career, career choice, reasons for career choice, the importance of career planning, factors of encouragement and discouragement in career plans, and what would be most helpful in career plans. Questions on career help included the availability, use, and helpfulness of high school services, curriculum and resources, the people helpful to career, the confidence in career plans after high school, and the preferred work location. The results of this study suggest grade 12 students value career plans and the resources, both people and informational, to support transitions. These students voice the need to have passion for career, and report a wide range of occupational choices. The large majority who plan post-secondary education or training expressed the need for diverse but specific career development services to support success in career. High school career development resources are available but the efficacy data suggests their underutilization or reports of not being fully helpful to career plans. An important finding is that career resources are used in the school setting but not the community. The results of this study have implications for the delivery of high school career programs and the development of the public policy on career services.

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CHAPTER I

Introduction

High schools are now challenged to develop graduates with the knowledge and skills to pursue individual career goals (Alberta Human Resources and Employment & Alberta Learning, 1999; Dickson, 1995; Human Resources Development Canada, 1998). The transition from secondary education to post-secondary education and world of work is described (Minister of Public Works and Government Services Canada, 1998) as "a process through which a student travels; a concept or set of relationships which can be defined and delineated; a set of programs, resources and services" (p.7). As a result of attention to this new mandate, it is possible to identify important new career education initiatives in Canada as schools, curriculum, and resources address student career opportunities and choice. The requirements of secondary school graduation include a greater curriculum emphasis on outcomes and, as well, include expectations related to employability skills and emphasize the benefits of work experience (Alberta Human Resources and Employment & Alberta Learning, 1999; Alberta Learning, 2000; Dickson, 1995; Minister of Public Works and Government Services Canada, 1998).

Several authors (cf. Dickson, 1995; Hiebert & Bezanson, 1995; Levin, 1995; Powlette & Young, 1996) describe how, over the past decade, Canadian public policy initiatives have given new prominence to high school career development practice and an agenda of improved career resources for youth. The objective of this study is to examine high school career needs. This is a needs assessment process, that places a priority on providing students with an "active voice" in identifying their career needs, and is important to program decision-making (Blustein, Phillips, Jobin-Davis, Finkelberg, &

Roarke, 1997; Collins, 1998; Douglas, 2001; Gordon, Couture, Drefs, 2000; Hiebert, Kemeny, & Kurchak, 1998; Paa & McWhirter, 2000). Collins (1998) states "Ideally, all stakeholders, especially those for whom the programs are intended would be involved in deciding what makes a need a priority" (p.118). This study will examine grade 12 students' perceptions of the delivery of high school career programs.

The school-to-work transition (STW) requires that the high school graduate make personal and career choices within the framework of changing social and economic conditions (Bezanson & Hiebert, 1997; Human Resources Development Canada, 1998; Lowe, Krahn, & Bowlby, 1997). The career counselling literature documents a 21st century that is a post-industrial (PI) society (cf. Alberta Advanced Education and Career Development, 1995; Blustein, 1997b; Peavy, 1996; Savickas, 1993; Watts, 1996). Post-industrial society is defined by transformations in: labour markets, the nature of work, the emergence of knowledge based industries, the newly dominant forces of information technology, massive immigration, and global economies (Savickas, 1993; Watts, 1996). The changing STW parameters are clearly outlined by economists who study labour markets. Future workers must have specific skills training beyond high school to fully participate in the new realties of the knowledge-based economy (Alberta Human Resources and Employment & Alberta Learning, 1999; Watts, 1996). The prediction is that more than 60 percent of new jobs created between 1999 and 2005 will need some form of post-secondary education (Alberta Human Resources and Employment & Alberta Learning, 1999).

Recent STW research has studied the career plans of grade 12 students. Lowe, Krahn, & Bowlby (1997) report on the STW transition of 1000 high school seniors and

examined the following factors: educational achievement, further educational plans, relevance of high school education, work and volunteer experience, acquisition of work-relevant skills, and career goals. One of the recommendations of these authors is the continued study of the complex pathways between secondary and post-secondary education and between education and employment. Importantly, they observed that future research must examine the key supports and barriers to students' educational and career goals. The report by the Minister of Public Works and Government Services Canada (1998) affirms that new research is required on the effectiveness of school career services including student access to labour market information, individual career counselling, and computerized career information. In a study of adolescent health-related needs, Collins (1998) observes that high school students regard the preparation for future education and career as important. Research based on a school leaver's survey, with a sample size of 18,000 individuals, aged 18 to 20 years, analyzed the labour market participation patterns of the youth (Human Resources Development Canada, 1998). It concluded that high school education may not be enough and recommended that more attention must be given to the career development experiences of youth. Lastly, Blustein et al. (1997), in a theory building study, recommended that research attend to the context of youth STW transition, and continue to identify the critical elements and ways in which adaptive characteristics can be fostered.

The Purpose of the Present Study

This study will examine the delivery of career development services to Grade 12 students in Southern Alberta. This study will fill a gap in the literature by providing a description of student utilization of high school career curriculum, resources, and

services. Data will be gathered on the helpfulness of high school career services, and the student perception of support and barriers to career plans. This study will pay attention to the career experiences or the career context of high school, the availability of resources to support a growing sense of career, personal career identity, and confidence in future career.

The format of the research is a needs assessment instrument and the research will undertake an analysis of expressed career education needs for 888 grade 12 students. The research will examine the grade 12 data from The Comprehensive Career Needs Survey (CCNS) [Magnusson & Bernes, 2001]. The goal of the research is to contribute to an increasing understanding of grade 12 career needs.

The Research Questions

The following questions from the CCNS form the basis of this study of grade 12 career needs.

Part A: General Information

1. How do grade 12 students distinguish between occupation and career?

Part B: Career Plans

1. What are grade 12 career plans?
2. What is the level of grade 12 career planning upon high school completion?
3. How important is finding work in the home community?
4. What are the future work plans of grade 12 students, assuming a proper education? Why would they choose that type of work?
5. What do grade 12 students find encouraging and discouraging in planning a career?

6. How important is career planning at this time? If not important when might it become important? If career planning is important, what would be most helpful to career plans?
7. Who are the people approached for help in career plans?

Part C: Career Help

1. How useful are the school career development information or assessment tools?
2. Who are the individuals in the school, community, or family that have provided career help?
3. What school services and resources have helped in career planning?
4. What is the level of the students' confidence in finding an occupation they love, and getting the education and training they need?
5. What is the preferred location for work in a chosen occupation?

Conclusion

This chapter provides a brief introduction to the topic of high school career development needs. Chapter Two will present a review of the literature relevant to this topic. The methodology of the study is given in Chapter Three. The results of this study are presented in Chapter Four. Chapter Five will discuss the implications of the research findings and will offer recommendations and suggestions for future research.

CHAPTER II

Review of the Literature

The goal of this research study is to document the career education needs of grade 12 students. Questions will be asked about what the high school educational programs contribute to the preparation of students for their future career. The challenges of a knowledge-based economy, the impact of globalization, and information technology are acknowledged as factors. The study will pay attention to the adolescent educational experience and the implication of this experience in a radically changed labour market. It is important to understand how educational programs assist in developing awareness of career opportunities and influence student choice of career from multiple options. This study will explore, from the student perspective, high school career needs and the delivery of career development programs.

This literature review is written with the overall goal of connecting the findings of this study with the current literature base (Collins, 1998; Neuman, 2000). The intention of this writer is to present, integrate, and summarize what is known on the topic of adolescent career needs. The literature review will be structured in three parts. Part one will be a discussion of the adolescent context: world transformation, the adolescent developmental paradigm, adolescent identity formation, and the school-to-work transition. Part two will focus on high school career development programs and services, which includes the public policy of youth career development, career education and services, and career development program efficacy. It will conclude with a discussion of adolescent needs survey research. Part three will highlight gaps in the present research, and provide the rationale for the present study.

Part I: The Adolescent Context

World Transformation.

The global economy and the changes driven by rapid advances in information technology (IT) have resulted in a dramatically altered social context for today's adolescent (Hamburg, 1997). A number of authors also document how events of world transformation and technological advances have significantly impacted the economy, community, family and the adolescent experience of growing up (cf. Benson, 1997; Hamburg, 1997; Lagemann, 1993; Santrock, 1996; Takanishi, 1993). Santrock (1996) comments that the adolescent's world possesses possibilities unimaginable fifty years ago: computers, the Internet, and the planet within reach through television, and air travel. Career development theory explains the relationship between individuals and their environments or their social contexts, as they undertake career development tasks. It is necessary to consider, that this world transformation and expansion of knowledge may be confusing and overwhelming. Changes in the adolescent context of the family, education, community, or the world of work could influence progress in adolescent career tasks.

A number of authors (cf. Blustein, 1997b; Feller & Waltz, 1996; Marshall, 1997; Savickas, 1993) are of the view that the twenty-first century will, in probability, continue to be characterized by social and economic transformations that will increase adolescent doubt and apprehension, especially in the tasks of choosing an occupation. Benson (1997) and Damon (1991) describe the critical problems of a post-industrial society (PI) as excessive population growth, the impact of urbanization, environmental damage, erosion of strong neighbourhoods, drastic mixing of cultures, high divorce rates, low income families, and separation of adult and adolescent roles. The Organization for Economic

Cooperation and Development (OCED) reports that 5-30 percent of all children and youth in it's member groups are at risk of failing to complete school and of being integrated into mainstream life (Takanishi, 1997).

Career development in post-industrial societies is addressed by a number of authors (cf. Alberta Advanced Education and Career Development, 1995; Feller, 1996; Hartoonian & Van Scooter, 1996; Herr, 2000; Hughey & Hughey, 1999). In reviewing unprecedented workplace change, Peterson & Gonzalez (2000) emphasize the new relationship of work to the global economy, the interdependence of social, political and economic systems, and issues of multiculturalism and diversity. They believe these topics must be at the forefront of career development and life planning. In a consideration of career counselling in the "high technology or knowledge age" Hoyt & Hughey (1997) are of the view that students need help in preparing for entry into the changing primary labour market and re-iterate the new emphasis for all persons to receive some post-secondary education. Several authors (cf. Feller, 1996; Herr, 2000; Watts, 1996) assert the new role of schools in advanced industrialized societies as providing the foundation for lifelong career development. There is recognition of "the need to make all schooling more career relevant" (Herr, 2000, p.20). The concluding assertion is that students must be prepared to meet the challenges of the changing labour market and that career development must be a priority.

Post-Industrial Society.

In a discussion of the current PI society, Savickas (1993) offers a review of the history of labour markets. He describes the 19th century as characterized by a vocational ethic in the encouragement of passion, genius, and creativity in work. In this period,

occupations typically followed family craft traditions and included taking over the family farm or business. The most dramatic change of the 20th century was the new dominance of an industrial society model, including the rise of positivism or the attention to reason, observation, and accuracy, and the emphasis of work ethic; facts were valued over feelings. Careers were often defined by large organizations and the ladder was the visual image of career, as occupational titles placed workers in an organizational hierarchy (Savickas, 1993). Career counselling was positivist, as it adopted a trait and factor application of the scientific method to promote career choice. Counsellors administered psychometric measures of interests, values, and abilities and used the results to guide people in career choice. This was a career development theory or a theory of self comprised of measurable traits and factors (Savickas, 1993).

A number of authors (cf. Peavy, 1993; Peterson & Gonzales, 2000; Savickas, 1993) view the 21st century as distinct in the evolution from an industrial model to a PI society. Presently the work domain or career ethic is under assault, as organizational hierarchies and bureaucracies decline. There is recognition of a new societal frustration with authority and organizations. This transformation is described as the decline of positivism as the only truth. The constructivist notion of career regards society as no longer sharing an objective reality; instead there are multiple realities (Peavy, 1993; Peterson & Gonzales, 2000). There is no longer "one right way" to view a career. The transformation to a PI society and the changed labour market has an influence on adolescent career development.

The Adolescent Developmental Paradigm.

Related to the discussion of adolescent career context are the views of several authors (cf. Benson 1997; Hamburg 1997; Takanishi 1993) who describe a major paradigm shift in the conceptualization of adolescent development in a transformed society. Takanishi (1997) the executive director of the Carnegie Council on Adolescent Development describes this new emphasis as originating from two traditionally independent areas of practice, the professionals who work directly with adolescents and the researchers who study their development. This new paradigm documents growing agreement about the universal and essential requirements for healthy development during the second decade of life.

Another key theme of these authors is that adolescents must experience social support. This is described as the need to find a place in a valued group, or the essential experience of secure relationships with a few human beings that provide mutual support and caring relationships (Lagemann, 1993). Benson (1997) proposes that a supportive social group can nurture and facilitate the adolescent developmental sequence and ideally includes opportunities for:

1. Identity tasks;
2. Feeling a sense of personal worth;
3. Establishing a few close and reliable relationships;
4. Meaningful self-expression and exploration;
5. Finding a basis for informed and deliberate decisions; and
6. Belief in a promising future in work, family and citizenship.

Benson (1997) and Santrock (1996) therefore suggest that in a world that has been transformed, an important requirement for adolescent development is educational opportunities and support from adults and the community and the belief in a promising future and career. Questions can be asked about the complexity of the "development" of career for today's adolescent. Lewington (1999) writes that, presently, in Canada, 15 to 18 percent of students do not complete high school and approximately 40 percent of young people, aged 25 to 29, find the transition from school to work difficult. World transformation and the changed adolescent context are key topics to contemplate when undertaking a study on grade 12 career needs. It becomes evident that new research must continue to examine adolescent developmental needs, including career transitions.

Blustein et al. (1997), in a theory building study of the school-to-work transition of high school graduates who were entering directly into the workplace, also describe the importance of relationships. In describing the characteristics of the subjects who made adaptive transitions, one of a number of key findings was their similar experience of close relationships. These relationships gave emotional and instrumental or functional support, as well as provided "conversation" or what the authors depicted as challenging interpersonal opportunities. This was viewed as the optimal relational context to support the STW transition.

The goal of this research study is to document the career education needs of grade 12 students. This study will address the identified gap of "relational support" in the research and ask questions on adolescent relationships, with the hope that the study will offer new data on support for grade 12 career plans. This research will ask the respondents questions about the individuals in the school, community, or family, who

have provided career help and which school services and resources have been helpful in career planning. The next section of the literature review will summarize topics on adolescent identity development and adolescent career development.

Adolescent Identity Formation.

The literature on adolescent identity development suggests that identity is the adaption of the adolescents' special skills, capacities and strengths to the society in which they live (Muuss, 1996). The movement from high school to the work world represents a critical developmental transition during late adolescence. Recent initiatives to integrate the extensive career development literature with the identity literature have resulted in new insights (Blustein, 1994). Santrock (1996) believes that the formation of a sense of identity has been widely accepted as a key developmental task for adolescents in Western societies. Grotevant (1992) observes that identity is seen as a structure or framework out of which individuals interact with the world. Current identity theories provide a life-span model (Super, Savickas, & Super, 1996). It is relevant to contemplate identity, including career identity, as a lifelong developmental task, not a specific stage of adolescence (Adams, 1992).

Identity formation is a process. The work of Erikson (1968) presents a psychosocial model that views identity achievement as the bridging developmental task between childhood and adulthood. Erikson posits that adolescent identity and exploration occur primarily within a social context. In adolescence, cognitive, social, and physical development advance to a point that permits integration and systematization of the sense of self (Damon, 1991; Santrock, 1996). But identity development also gets done in bits and pieces; decisions are evolving, and have to be made again and again. Identity

therefore becomes increasingly complex and inclusive, only by means of commitment and action, disconfirmation (disequilibrium) and subsequent reformulation and recommitment to altered values and directions (accommodation) (Marcia, 1991). Therefore adolescent identity development is viewed as evolving and incremental.

Several authors (Peavy, 1993; Savickas, 1993) comment that in the past half-century there has been the presumption that individuals developed in a linear fashion, completing one developmental task and moving on to the next. However, they view the present societal context as one of nonlinearity, frequent transitions, and negotiable options. Takanishi (1997) asserts that transformation of traditions and the loss of cultural customs and stable norms, result in more risk, doubt, uncertainty, and social instability for adolescents. The implication is that adolescents must develop a personal system of meaning in response to the transformation of many previous external reliable points of reference (Savickas, 2000).

This writer will therefore, intentionally adopt the model of career as constructed by the individual. This is the constructivist model of career, which has been discussed by a number of prominent authors (cf. Peavy, 1996; Peterson & Gonzalez, 2000; Savickas, 2000; Watts, 2000). This constructivist career practice acknowledges life long development of career meaning and can view an individual career as a reflective process, embodying exploration of self and social context.

The Erikson (1968) identity model is existentialist in observing that adolescents seek the meaning to their life, as well as the meaning of life in general. This affirms the constructivist notion of identity, which implies that adolescent identity and career identity must be self-defined (Peavy, 1996; Watts, 2000). Peavy (1993), suggests that self-identity

in a PI society is a reflexively organized project. Peavy, (1993) in a review of constructivist career counselling practice regards it as a philosophical framework with the following beliefs:

1. Individuals have the ability and need to "make meaning;"
2. The self is "self-organizing, purposeful, and proactive;"
3. Each person sees the world through his or her particular lens; and
4. Career is just one theme of a person's self-project.

The narrative of self-understanding or the storying and restorying of an individual's career experience and journal writing is prominent in constructivist career experience (Peterson & Gonzalez, 2000; Savickas, 1993). Encouragement is given to the establishment and maintenance of networks, both support and informational. Listening receives equal status with speaking in constructivist career counselling conversations (Peavy, 1993).

Adolescent Career Context

Blustein (1994) is of the view that context is the family, education, social, and economic settings that can influence the progress of career development. Career development theory conceptualizes this relationship between individuals and their contexts or personal environments as they encounter career development tasks. In a parallel sense, the literature on ego identity has devoted attention to the role of contextual factors in understanding the process of identity formation.

The central focus for career development theory has always been the understanding of how individuals obtain and utilize the self-knowledge needed to develop satisfying careers. Helping clients to learn more about themselves forms a major

part of most models of career counselling (Blustein, 1994; Grotevant, 1992; Sharf, 1997). Savickas (1993) and Blustein (1997a) examine the contextualized view of career. These authors explain the shift in career counselling away from the historical focus on the provision of occupational knowledge, to an expanded view, which includes encouraging more client self-exploration and in the encouragement of a lifelong exploratory attitude. This literature addresses the question of "Who am I?" These authors are of the belief that the unpredictable conditions in a PI society can make it more difficult for adolescents to answer basic identity questions such as "Who am I?" and "Where do I belong?"

Adolescents must be encouraged to undertake the exploratory activities of both their environments and self as central to progression in personal development. Blustein (1994) believes that adolescents need to consider aspirations and dreams in order to feel energized and to engage in these complex developmental tasks of self-definition and career planning. Marcia (1991) views the antecedent to adolescent identity as being focused activities or personal industry. This author observes that it is very difficult to make the occupational commitments required for identity development, if an adolescent lacks self-initiative or a belief in the worth of personal endeavours. Significant to identity development is the adolescent's efforts or industry in finding vocational environments that fit perceived personality, work style, and values.

Adolescents must be also encouraged to contemplate the broader context, and view the social and economic world as accessible and attainable. Exploration and commitment are generally acknowledged as the principal method by which adolescents move toward the development of a self-chosen vocational identity (Vondracek & Skorikov, 1997). Once adolescent identity is attained, it can function to provide structure

for understanding the self, a sense of meaning and direction, a feeling of personal control (Adams, 1992). Importantly, this identity is constructed in a relational context as the adolescent participates and engages in conversation within a personal social network.

Adolescent Relationships and Career Development.

There is growing awareness of the importance of relationships in career and adolescent development (Blustein, Prezioso, & Schultheiss, 1995; Borgen & Amundson, 1995). Blustein, et al. (1995) report that the experience of felt security, that distinguishes individuals with secure attachment relationships, encourages the exploration of the self, educational, and vocational environments. Damon (1991) writes about the human experiences of being in a "connection" of relationships. Adams & Gullotta (1989) observe that adolescent socialization includes inclinations that create and sustain relationships. Adolescent relationships bestow integration and respect. Lastly, relationships regulate behaviour according to a social code (Damon, 1991).

Adams & Marshall (1996) write about the social function of "mattering", a sense of belonging to and reciprocal caring for significant others. Mattering or the experience of self-validation implies having ones' needs affirmed, recognized, accepted, and appreciated in an interpersonal context. Important to this present research study is the confirmation that adolescents negotiate the challenges and momentum of career exploration more easily, if they receive support, nurturing, and resources from family, school, and community. This is the quality of environments that fosters self-discovery (Blustein, et al., 1995). The concept of mattering impacts the work of educators. Mattering confirms the human need for emotional and informational support. It is

observed that educational environments can contribute to the felt sense of mattering and therefore have an important influence on the healthy development of adolescents.

Another area of the literature provides a discussion of characteristics of personal adaptability and career development. Savickas (1997) and Marcia (1991) suggest that the multiplicity and depth of personal exploration, as well as opportunities, enhance individual adaptability and the achievement of identity The participation of the individual or the exploration of context is a function of maintaining an exploratory attitude to life. In fact, the coping responses of planning, exploration and decision-making are useful skills in preparing for powerful world change (Savickas, 1997).

Individuals are born with unique characteristics and predispositions that are influenced by the family and the social contexts of environments (Mitchell, Levin, & Krumboltz, 1999). Developing the capacity to explore the environment in concert with one's own internal psychological resources describes a context-rich, social-constructivist perspective and confirms exploration as a critical dimension of career adaptability (Savickas, 1997). Adolescent career counselling is encouraging adolescents to participate in opportunities, have a sense of the future, and make choices to become the person they want to be.

Magnusson and Redekopp (1992) describe a model of adaptability with three major facets: competency, salience, and self-management. Planned skill development can result in increased competency for transition and adaptability. Personal motivation or salience is the crucial background for skill development to have positive outcomes. Adaptability, for the adolescent, involves the skill of self-management or a planful approach and educated decision-making. Planful attitudes can be learned, allowing

individuals an important means of increasing their adaptability. Savickas (1997) substantiates that adaption, or becoming more personally suitable by changing, has replaced career maturity as the central construct in the adolescent career development model. Adaption emphasizes the interaction between the individual and the environment (Blustein et al., 1997; Magnusson & Redekopp, 1992). In fact the transition from school to work seems more like an adaptive challenge than a maturational task.

Important is the benefit of helping adolescents to develop the potential to adapt as well as tolerate the ambiguity of a PI society. The implication of persistent change suggests a continuous need to respond to new circumstances and occurrences as opposed to the former adolescent developmental stage model with its focus on the mastery of a predictable and linear continuum of developmental tasks. The ability to make transitions will be a skill for survival (Savickas, 2000; Watts, 2000).

Finally, chance events or unexpected events can be viewed in a positive light. The concept of serendipity in career suggests that life events are often unpredictable but do offer opportunities for both positive and negative learning. In fact, individuals have the opportunity to generate events and resources to capitalize or maximize learning (Alberta Advanced Education and Career Development, 1995). Mitchell, et al. (1999) write on the similar concept of "happenstance". These authors also regard unplanned events as inevitable and desirable. The suggestion is not to merely meander thorough experiences, as there is a strong component of planned happenstance.

Career Identity Research.

Hutchinson (1995, 1996) has conducted research from a constructivist framework in studying the delivery of career programs in educational organizations. Hutchinson

(1995, 1996) affirms that career development is becoming a more integral part of the secondary school program. Data collected in a two-year study developed for delivery of the career development program Pathways, demonstrated that performance measures were sensitive enough to show student changes over time. Examples of performance assessment are projects, interviews, portfolios, constructed-response questions, and role-plays. Further Hutchinson (1996) states that "performance assessments are consistent with current constructivist approaches to learning, with their emphasis on applying knowledge to new situations, self-and peer evaluation, real-world tasks and group evaluations" (p.6). The conclusion is that student assessment can inform, rather than just measure, the career development process.

Vondracek & Skorikov (1997), in a study of 660 students in grade 7 through 12 found that vocational interests, confidence in occupational choice, and occupational prestige were closely associated with each other and with school and leisure interests and engagement in exploratory activities. This data provides evidence to support the work of Blustein (1997a) who documents the context of school in both the formation of interests, and vocational identity and also the potential of these factors to dominate and organize the other aspects of adolescent development. Vondracek & Skorikov (1997) offer a cautionary observation in questioning the real effect of school context in propelling vocational exploration with the suggestion that actual progress toward a stable vocational identity also requires work place participation.

Picklesimer & Hooper (1998) in a sample of 269 students attending a large, metropolitan secondary school undertook to study the relationship between life-skill development and post-secondary career plans. Students completed a Life Skills

Development Inventory–College Form (LSD-CF) which is an 88-item instrument that measures life skills in four subscales: Interpersonal Communication/Human Relations, Problem-Solving/Decision-Making, Physical Fitness/Health Maintenance Skills, and Identity Development/Purpose in Life Skills. The LSDI-CF uses a Likert type scale and higher scores indicate a higher self-perception of life-skills mastery. Noteworthy to this research is the confirmation of educational programs that attend to adolescent developmental needs and the critical examination of the process of engaging high school students in life skill acquisition as a prerequisite to career choice.

Paa & McWhirter (2000) present descriptive data on 464 high school students and quantify their perception of various factors that might influence their current career expectations. The primary purpose of this research is the need for clearer understanding of perceived influences helpful in designing career interventions. The study gathered descriptive data and tested two hypotheses:

1. Same sex role models would be more influential on career expectations; and
2. The participants would rank the influence of personal variables higher than the influence of background and environment.

Participants were surveyed as a class at two high schools. This data was part of a larger survey of career development variables.

The results were presented in a table of mean rankings, which reflect the average ranking assigned to that factor, with higher ranks associated with stronger influences. The top three background influences for both males and females were ability, role models (seeing people in a specific career) and the media (things read or seen on TV about specific careers). Ethnicity, gender, and family money resources were the three least

influential factors. The three strongest personal influences for both genders were interests, personality, and values. In the category of environmental influences the three strongest influences for both genders were mother, father, and friends. The overall results confirm a gender-neutral perception of influence. These results suggest that these students have begun the process of self-exploration. Discussion centred on the low ranking of counsellors as environmental influences and suggested this might be the result of their low numbers in most high schools.

Career development programs can provide important self-affirmation for the adolescent. In psychological terms, career curriculum assists the healthy development of adolescents in the discovery of individual characteristics and the validation of uniqueness of personal identity. This study will ask questions about the meaning of occupation and career, importance of career planning, and what would be most helpful in grade 12 career planning. It is hoped that the results of this study will contribute to an expanding knowledge of the role of career development in supporting this healthy adolescent identity development. Important to this study is that this discussion of adolescent career needs, may as well, be viewed within the framework of the extensive literature on the school-to-work transition.

The School-to-Work Transition.

A number of authors (cf., Blustein et al., 1997; Feller, 1996; Hughey & Hughey, 1999; Worthington & Juntunen, 1997) consider the movement from high school to the world of work or post-secondary education as representing a critical developmental transition during late adolescence. Savickas (2000) is of the view, " The school-to-work transition has become particularly problematic because the instructional methods and

materials in school have become increasingly disassociated from the requirements of post-industrial organizations" (p.55). The Canadian data reports that the greatest number of new labour force participants enter the labour market at the conclusion of secondary or post-secondary education. Team Canada (2000) coordinated by the Canadian Career Development Foundation prepared a national paper, which was presented at the first International Symposium for Career Development and Public Policy. This paper describes as critical to successful transitions, the availability, in both secondary and post-secondary schools, of appropriate career materials, in particular labour market information.

Confirmation of the economic benefits of schooling is apparent in figures on individuals who have acquired at least some post-secondary training. Little (1998) profiles labour force participation rates and confirms that the jobs are going to those who have earned a university degree, college diploma, or some other form of post-secondary education. Employers want workers with educational credentials; they want people with the potential to grow into larger roles in the organization. The hiring patterns of the 1990s have altered the Canadian labour market drastically. In 1990, people with postsecondary credentials held almost 41 percent of all jobs, but by 1997 the figure was 52 percent. The share of jobs held by people with less than a high school diploma fell from almost 27 percent to just over 18 percent (Little, 1998). Gilbert & Frank (1998), in a follow up study to the 1991 School Leavers Survey (SLS), revisited 6000 of the original respondents now 22 to 24 years of age in order to focus on the STW transitions and to gain information on the skills they possessed. Findings included the fact that young people, who did not graduate from high school, infrequently used skills such as reading,

writing, numeracy, verbal communication, learning, and teamwork. The authors express the opinion that weaker skills make it harder for individuals to adapt to a more technical job market.

Levin (1995) asks what schools can do to respond to changes in work. The Canadian Youth Foundation (1997) reports that youth enrollment rates in educational institutions have risen steadily throughout the 1990's, from 52 per cent of 15 to 24 year olds in 1989, to 60 percent in 1996. Among the 25 to 29 year olds, well over half of the labour force or 59 per cent has completed some form of post-secondary education. Rising enrollment rates appear to be related to the perception that higher educational levels are increasingly fundamental to finding satisfactory employment. The Canadian Youth Foundation suggests that credentialism has lowered the value attached to a high school diploma, leading employers to routinely consider only post-secondary graduates for jobs that high school graduates would normally have filled a generation ago. These authors are of the view that labour force participants will need special skills or human capital to successfully transition into the increasingly competitive labour market.

Worthington, & Juntunen (1997) and Nadel (1997) describe human capital theory. This is an economic theory, which regards the individual characteristics of knowledge, skills, abilities, personality, appearance, reputation, and appropriate credentials as human capital. These authors believe that the development of "human capital" is the result of investment of time, energy, and money by the individual and can be converted into a personal capacity for earnings in the labour market. Individuals develop their human capital resources differently, in part because of differences in their environments or contexts and the differences in the individual capacity to benefit from these personal

development activities. The STW movement regards access to opportunities, in both education and training, to be important investments in human capital.

The position taken by Worthington & Juntunen (1997) is that one of the key assumptions of the school-to-work movement is that through integration of appropriate learning experience, access to the opportunity structure of the labour market can be optimized for all youth. These authors propose that the eminent challenge is to construct an integrative STW theory with foundations that cross disciplines including economics, education, developmental psychology, organizational psychology, business, and sociology.

Worthington & Juntunen (1997) also observe that the principal focus of career counselling psychologists has been to conduct research and plan interventions at the individual and micro system level. The recommendation is for new research to identify the psychological factors of a successful STW transition.. These authors regard it as important to examine the efficacy of career educational programs. They propose that career psychology be focused on the collection and analysis of data on participant outcomes in STW programs. Lastly is the significant conclusion by a number of authors (cf. Blustein, et al., 1997; Watts, 1996; Worthington, & Juntunen, 1997) in the identification of the "school-to-work transition" as one of the most complex intellectual and social problems that face career development professionals.

Finally, Levin (1995) suggests that many high school students basically do not know what they want to do with their lives, making work preparation very difficult. There is evidence of the poor association between vocational training in high schools and ensuing work in a related industry (Human Resources Development Canada, 2000). The

observation can be that family influences, economic conditions and coincidence (such as happening to get a job) are more important than school programs in determining career choice and employment outcomes (Levin, 1995). In fact, many students who leave school are well aware of the problems. In an Ontario survey, students were sharply critical of their high school experience and felt that schools had done little to prepare them for the realities of work (Levin, 1995; Ontario, 1989). In this present study, it is essential therefore to consider the contributions of recent STW research, in order to understand the articulation between schools, post-secondary institutions, and the labour market.

School-to-Work Research.

Worthington & Juntunen (1997) present a major contribution to the discussion of the STW transition. These authors remark that counselling psychology as a profession has been involved with the field of career development since the beginning. Yet they comment that attempts to link counselling psychology and the school-to-work movement are almost nonexistent. Career development theories have been increasingly criticized in the vocational psychology literature as addressing only the most economically and educationally advantaged youth who constitute only 15-25 percent of the population (Blustein, et al., 1997; Worthington, & Juntunen, 1997). One action taken by the United States government is the passage of the 1994 School-to Work Opportunities Act (STWOA). The general program goal is to integrate school-based and workplace learning. Students are helped to develop a career major that that will be the focal point of both academic and vocational experiences after the 10th grade. The STWOA strives to build an infrastructure of partnerships among the public school system and private businesses with the intention of increasing the relevance of school-related activities to the

requirements of the workplace. In addition is the provision that the program provide assistance to participants in finding an appropriate job, or continuing their education. A key element of the STWOA movement is the attempt to eliminate the perception that a four-year college degree is the only path to occupational success.

Worthington & Juntunen (1997) also provide an examination of some of the ways the profession of counselling psychology and the STW movement might improve their efforts to address the career needs of youth. It is observed that vocational psychology theories have historically emphasized the role of intrapsychic factors such as cognitive ability, values, interests, and self-efficacy with career satisfaction and adjustment as the important occupational outcomes. These psychological theories emphasize the process of choice. Sociological and economic models emphasize the process of allocation of employment opportunities. These authors remark "Choice theories tend to be embedded in assumptions that are overly individualistic and meritocratic, whereas allocation theories are imbedded in assumptions that are overly deterministic" (Worthington & Juntunen, 1997, p. 338). They speculate that the nature of the school-to-work transition will require that vocational psychologists continue the trend away from individualistic, psychogenic explanations in favour of more contextual frameworks. A final conclusion is that increasingly theories in career psychology will attend to a complex combination of social, environmental, cultural, and political factors, as well as individual characteristics, when describing career development (Blustein et al., 1997; Watts, 1996; Worthington & Juntunen, 1997)

Blustein et al. (1997), in a qualitative, discovery oriented, hypothesis-generating investigation, undertook to delineate the relevant factors and processes that promote

adaptive transition from high school to the world of work. These authors confirm that the career struggles of non-college bound youth are largely overlooked in the career development literature. They believe that questions can be asked concerning the relevance of existing theoretical statements, yet confirm that the movement from high school to the work world represents a critical developmental transition during late adolescence.

The research used an interview procedure, with attention to stories or the experiences of 45 employed young adults aged 18-29. In the analysis of the narratives, the authors wished to identify the psychological attributes of the subjects and the other key factors in the context of the STW experiences. The research focus was on job satisfaction and congruence analysis (the index of fit between that individual and occupational pursuit). The factors analyzed included: the individuals own characteristics, self and environmental exploration, decision-making, the seeking of emotional and instrumental support, and relational resources including parents and career counsellors.

The conclusion of these authors was that the resilience and creativity found in adaptive transitioners could be linked to purposefulness in undertaking developmental tasks, awareness of obstacles and the active exploration of options. These authors confirm the prominence of relationship to offer support both that is emotionally responsive and also provides advice and consultation. Their proposition is that difficult transition may be improved by access to more educational and vocational training opportunities. Finally, the authors regard that future research must attend to the context of the STW transition, the understanding of coping strategies, the notion of career as a developmental challenge, and to continue to identify the critical elements and ways in which adaptive

characteristics can be fostered. Clearly these conclusions support this study with its focus on the career needs of high school students. This study will ask questions about career plans, importance of work in the home community, and reasons for choice of career plan. It is hoped that the results of this study will provide new data on the high school context of the STW transition.

Lowe, Krahn, & Bowlby (1997) undertook a major study of 1000 grade 12 students in Alberta, with the goal being to examine school-to work factors including further educational plans, relevance of their high school education, and career goals. Along with the many findings is the observation that 93% of the sample agrees that everyone now requires a higher level of education and 86% agree that continuing their education would get them a good job. In questions surrounding educational plans, 43% preferred a university education, versus 24 % who preferred trades or technical education. In data on those going on to post-secondary education, 46 % planned to enroll at a university, 30% at a community college, 15% at a technical institute, and 4% planned to enter an apprenticeship. Regarding occupational aspiration, the sample members listed professional occupations more frequently than sales and service, clerical or blue-collar occupations. The respondents placed the highest value on work that was interesting, involved friendly people, had little chance of being laid off, and provided a feeling of accomplishment.

Notably, 16% of this sample planned to return to high school the next fall, while 21% did not plan to continue their education in the immediate future. Lowe, Krahn, & Bowlby (1997) conclude that their study has begun to illuminate the complex linkages between secondary and post-secondary education and between education and

employment as experienced by high school seniors. These authors recommend that priority be given to conducting research, which identifies the key supports and barriers to students' educational and career goals. This present study will examine grade 12 data from the CCNS questionnaire in order to identify factors of encouragement and discouragement in student career planning. The objectives of this CCNS study therefore reflect this previous research recommendation.

Part II: Career Development Programs and Services

Career Development Public Policy.

Recent public policy initiatives have relevant implications for the delivery of high school career development programs and services. Several authors, as well as recent public policy documents, address the topic of adolescent career needs, and therefore provide a framework for critical analysis, which this writer believes is relevant to this study. Watts (2000) observes that until recently little attention has been paid to policy issues in the career development field. Savickas (2000) suggests that concern about school-to-work funding and priorities have prompted many counsellors and researchers, for the first time, to be interested in public policy. Watts (2000) comments, "The availability of career development services and their nature are strongly dependent on public policy. Governments, whether at the national, regional, or local level, fund most such services, either directly or indirectly" (p. 278).

A number of authors (cf. Dickson, 1995; Hiebert & Bezanson, 1995; Levin, 1995; Powlette & Young, 1996) describe how, over the past decade, Canadian public policy initiatives have given new prominence to high school career development practice and an agenda of improved career resources for youth. Team Canada (2000) in a discussion of

the changing landscape of career development in Canada suggest that "Career education must be in the mainstream of the education system and expose students to the reality of a multi-skilled, flexible work environment in which continuous learning is fundamental" (p.98). These authors also suggest that the availability of career materials, especially labour market information, in secondary and post-secondary schools is critical to successful transition. They add that many students would also benefit from access to a guidance counsellor. Important to this study is the observation that the focus of career development research has been largely on the supply side of services or what is delivered, rather than on the demand side of services, or the understanding of the consumer, in this case the adolescent, and what they actually want or need (Bezanson & Hiebert, 2000). This present study will examine the expressed career needs of grade 12 students in order to contribute to understanding this consumer perspective.

A number of authors (cf. Hackett & Baran, 1995; Hartoonian & Van Scotter, 1996; Golberger & Kazis, 1996; Marshall, 1997; Takanishi, 1997) review why countries with democratic traditions hold similar objectives of well-educated citizens who possess the knowledge, values, and skills for life in the twenty-first century. They propose the crucial assessment framework is of the education, training and labour market challenges facing industrialized nations. There is agreement that policy makers must now undertake examination of new global realities, and the juxtaposition of existing career development programs in reference to changed labour markets (Levin, 1995; Nadel, 1997; Takanishi, 1997; Watts, 1996).

Canada has adopted the position that youth are an essential component of the moral, social, and economic fiber of the country. Human Resources Development Canada

(HRDC) estimates that nearly half of the new jobs created in the next decade will require a minimum of 17 years of education (Butlin, 1999; Hackett & Baran, 1995). An emerging public policy position in Canada is that graduation from secondary school and the links to further education can be regarded as the foundation for economic prosperity (Human Resources Development Canada, 1998; Human Resources Development Canada, 2000).

A number of authors present arguments that education must encourage intellectual and problem-solving skills, as adolescents must develop the capacity for flexibility and innovation (Bynner, 1997; Canadian Youth Foundation, 1997; Dickson, 1995; Feller, 1996; Goldberger & Kazis, 1996). Society provides reasonably transparent career paths for the quarter of our youth who earn baccalaureate degrees (Hughey & Hughey, 1999). A criticism of the present system can be that it is structured to support university bound students, without satisfactory respect to the majority, who take other routes after school (Lewington, 1999). In 1998, according to Statistics Canada, 26.4 percent of 25 to 29 year olds had attained a university degree while another 20.8 percent had graduated with a college diploma. Among that age cohort, 18.3 percent had a high-school diploma, 11 percent had some post-secondary courses and another 11 percent had some training in the trades. Yet 12.5 percent had not completed high school. It is also reasonable to consider that many students may identify themselves as non-college bound in high school, but later decide to pursue further schooling (Marshall, 1997). Most certainly the Canadian experience presents significant diversity in career aspirations, plans, and outcomes.

Takanishi (1997) contends the education of all young people must include the psychosocial preparation to cope with the intrinsic stresses of change and uncertainty. The recommendation of Takanishi (1997) is that addressing the impact of economic

globalization and the implication for preparation for adulthood be placed at the top of educational and social agendas. Hartoonian & Van Scotter (1996) affirm that the public policy of education is part of national economic strategies to develop in the "minds and hearts" of students the qualities of good scholars, citizens, and workers. This is an important statement of pedagogy, which has significant links to any balanced discussion of high school education in the twenty-first century. It is possible to conclude that career development is both a social and economic policy issue (Team Canada, 2000).

Public Policy Documents.

The province of Alberta acknowledges the PI society and the new dominance of the knowledge-based economy. A recent document states that the labour market will require workers whose learning goes well beyond grade twelve. Alberta is currently home to 211,500 young people between the ages 15 and 24. That number is expected to grow to 227,000 by 2006 (Alberta Human Resources and Employment & Alberta Learning, 1999).

The Alberta Youth Employment Strategy (AYES) report is a policy statement that considers that at risk youth may face exceptional challenges in obtaining a satisfying career. This report acknowledges the new reality for high school students, with the prediction that more than 60 percent of new jobs created between 1999 and 2005 will need some form of post-secondary learning (Alberta Human Resources and Employment & Alberta Learning, 1999). The report provides goals or a vision, detailed descriptions of current programs, and ways of measuring progress toward goals. The expressed purpose of the AYES initiative is to assist Alberta youth to face the future with confidence in the pursuit of personal and career goals and a sense of plans for a "high quality" adult life.

The document identifies four main challenges that affect the ability of today's youth to obtain meaningful employment including:

1. Lack of knowledge and skills;
2. Lack of work opportunities;
3. The increasingly complex and changing labour market; and
4. Barriers which are the result of factors such as poor educational attainment, disabilities, visible minorities or aboriginal youth, substance abuse, and family financial circumstance.

The AYES report concludes with the recommendation that governments continue to analyze economic and learning trends, and engage in a consultative evaluation process to identify improvements and to develop action plans.

Public Policy Research.

Human Resources Development Canada (1998) reports research data on the 1991 Canadian School Leavers Survey (SLS) with sample size of 18,000 individuals age 18-20, from ten provinces in Canada and the 1995 School Leavers Follow-up Survey (SLF) of 9,431 of the former subjects who were contacted at this later time. Of significance to this study is the SLF, which had a research objective to gather information on the school –work transitions of the young adults and to focus on education and work objectives beyond high school. One finding from the results on educational achievement was that 17 percent of the group were high school graduates who had not pursued further education or training. When these results are combined with early school leavers who did not complete high school, nearly 30 percent of the youth, aged 22 to 24, had relatively low levels of educational attainment. The results of this research suggest that in the

knowledge-based economy, higher education is the major pathway to improved labour market outcomes for individuals. The authors conclude that this finding should influence decisions made by youth and policy makers.

Butlin (1999) reports on a study examining the determinants of post-secondary participation in Canada. This sample was taken from the 9,431 individuals in the 1995 School Leavers Follow-up Survey (SLF) study. The respondents for this study were the 4,429 high school graduates. The goal of this research was to examine how the educational attainment of parents, gender, language, family type, school achievement, employment during high school, peer influences, and school involvement simultaneously affect the odds of participating in postsecondary education. Among many findings are that close to 30 percent of high school graduates from the Atlantic provinces, the Prairie provinces, and British Columbia did not participate in post-secondary education, compared to just under 20 percent of graduates in Ontario and Quebec. High school graduates from urban areas were more likely to participate in university (45 percent) than those from rural areas (34 percent). A higher percentage of high school graduates born outside Canada (53 percent) attended university compared to Canadian born graduates (41.5 percent).

These results on post-secondary participation have application to the objectives of this study. Human Resource Development Canada (2000) advocates "That we must take into account the policies and programs that in are in place to help youth make their transition-labour market and career planning information for example" (p.62). Team Canada (2000) asserts, "Career development is both a social and economic policy issue. It is at the foundation of the school-to-work transition process. How, or if it occurs

greatly affects the efficiency and competitiveness of the Canadian economy" (p 109). This present study in examining the student perspective and by asking questions on the level of career planning upon completion of high school, future work plans, and what type of career planning information would be helpful, will provide new knowledge on the outcomes of the public policy initiatives, of Canadian high school career development practice.

High School Career Education and Services.

It is the intention of this discussion of adolescent career needs to contemplate the implications of these public policy initiatives on high school career curriculum and education. "A Comprehensive Career Development System (CCDS) asks school systems and schools to establish a developmental, coordinated, systematic approach to help every student make career plans and make a successful transition into the workplace or post-secondary programs" (Alberta Learning, 2000, p.3). Bezanson & Hiebert (1997) believe that career services can provide students with the motivation to complete high school and the resources to enable sound decisions regarding post-secondary education and training. Watts (1996) and Team Canada (2000) suggest that career education is delivered in school systems and postsecondary institutions and it provides students with knowledge of their skills, interests, talents, motivations, as well as information on postsecondary and labour market options. In the stated objectives of career curriculum, there is often implied the notion of the development of increased personal initiative and responsibility in career decisions for all students.

Career education can be positioned in the context of lifelong learning. A number of authors (cf. Blustein, 1997b; Gitterman, Levi, & Wayne, 1995; Herr, 1997; Savickas, 1999) confirm career as a developmental process. Career evolves throughout a lifetime.

Savickas (1999) suggests career education implies a sense of the future, yet awareness of present environment or context. This developmental model for the STW transition emphasizes orientation to upcoming vocational developmental tasks and instruction in the competences of planning and exploring.

Gitterman et al. (1995) document societal demands for greater equity in career opportunity, in particular for females, visible minorities, children of economically disadvantaged parents, and exceptional needs students. Bezanson & Hiebert (1997) suggest that the current tendency to overvalue professional education may ignore the 60 percent of students who do not pursue post-secondary training. These authors believe that all students can aspire to occupations which are associated with high earning power, security, prestige, and job satisfaction.

Career counselling is an integral component of secondary career development programs. High school career counselling has a focus on helping and is psychological in emphasis. But career counselling is also a socio-political activity, for it operates at the interface between personal and societal needs (Savickas, 1993; Watts, 1996). The role of the career counsellor is to assist clients to progress in their learning, work, and career. Career counselling is crucial for three reasons:

1. It helps to clarify and articulate goals and possibilities;
2. It ensures that client decisions are based on the realities of the labour market; and
3. It contributes to equity of opportunity and social harmony (Savickas, 1993; Team Canada, 2000). An important recommendation is that high school counsellors must consider a role shift from principally responding to student needs, to a greater emphasis

on delivering proactive and developmental career development programs (Hutchinson, 1996).

Of consequence to this study, a number of authors (cf. Bezanson & Hiebert, 1997; Dickson, 1995; Watts, 2000; Team Canada, 2000) recommend that career education belongs in core secondary curriculum. Team Canada (2000) observes that in Canada each province has an autonomous education system. Therefore the delivery of secondary career education and counselling varies significantly across the country. Watts (2000) reports that three countries, the Netherlands, New Zealand, and the United Kingdom, have mandated career education within the curriculum.

Career Education Curriculum.

Career development helps students to develop skills and competencies in five critical domains: self-knowledge, occupational information, decision-making, planning and problem solving. Savickas (1999) believes that high school students cope better with the STW transition, if they have developed awareness of the choices to be made and can access the information and planning that support these choices.

Career development initiatives are reflected in Career Directions (CD) a new optional course with the goal of supporting grade 10-11 -12 students' career planning (Alberta Learning, 2000). The career-learning activities are centered on the development of two transition tools, a career portfolio and annual course plan. General outcomes for the curriculum include that students will:

1. Outline two or more plans that link personal goals to future learning and work opportunities;

2. Develop a career portfolio, to collect, select, organize and present career related materials;
3. Describe career development processes for the 21st century;
4. Outline and implement a work plan for enhancing essential competencies; and
5. Demonstrate effective career planning skills.

This is an optional program that schools deliver in 1-credit courses in grades 10, 11, and 12 respectively. Schools can timetable each course to ensure frequent, scheduled student-teacher interaction over the school year. This scheduling recognizes the evolving nature of career planning, career decision-making, and post-secondary planning. CD can be implemented in three ways:

1. Within the teacher advisor program;
2. Connection to Career Strands of Career and Technology Studies; and
3. Offered as individual study/tutor programs.

Importantly, CD provides a career development framework for many regular school activities such as registration, course selection, parent-school liaison, and progress reporting.

Alberta Learning supports the establishment of a Comprehensive Career Development System (CCDS) including action areas such as: personal planning, career information for parents, work experience, registered apprenticeship programs, career curriculum, professional development, community partnerships, structured pathways, and quality assurance. These strategies of adolescent career transition suggest that this approach will help every student to make effective career plans and a successful transition into the workplace or post-secondary programs.

The compulsory career curriculum of Career and Life Management 20 (Draft) (CALM) is centred on eleven specific outcomes including:

1. Examining the components of career planning as a lifelong process;
2. Developing strategies to deal with the transition from high school to post-secondary education/training and or the world of work;
3. Work: Now and in the future.

CALM requires students to develop a personal career portfolio, a resume for job interviews and to make post-secondary plans. The curriculum articulates the integration of essential employability skills, workplace learning, effective career planning services in schools, career planning and decision-making tools on the Internet, and the provision of students and parents with accurate learning and career information. The stated curriculum outcome is to achieve an increase in the percentage of youth who obtain skills and knowledge beyond high school and an increase in the work opportunities available to youth (Alberta Learning, 2001). These initiatives are evidence of emerging support for the "more skills" view of career development and affirm the objective of a curriculum accessible to both students and educators. In fact, there is recent research to document the coordination, implementation and accessibility of career education.

Career Education Research.

Bynner (1997), a British developmental psychologist, undertook a longitudinal study of developmental factors and career learning. This researcher identified that problems in acquiring basic literacy and numerical skills by age 10 resulted in problems in work-related skills (verbal skills, manual skills, caring skills, computer/keyboard skills, organizing skills). A related finding was that problems with the work-related skills

influenced high school achievement, occupational interest, and the STW transition. With respect to inclusive education (Bynner, 1997) suggests that career development must include all students.

Several authors (cf. Hutchinson 1996; Stemmer, Brown, & Smith, 1992; Studd, 1997) write about career portfolios as a useful career tool for discovering, developing, and documentation of individual skills. Students are encouraged to upgrade their career portfolios when they gain new or more advanced skills. The completed portfolio can hold interest inventories, materials from career days, a personal career plan, letters of recommendation, school awards and honours, sample schoolwork, resumes, records of job shadowing experiences, and personal journals. Teachers are asked to put "P" on work to indicate that it should be placed in a students' portfolio. Studd (1997) suggests that portfolios encourage students to take ownership of the career planning process and provides students with written documentation of their career development.

Watts (1996) documents a notable initiative in British education with the introduction of student self-recording of achievements and action plans. This entails a regular review of learning experiences, inside and outside the formal curriculum, and the defining of the skills and competencies they are acquiring. As well, students are asked to identify and review long term career goals, short-term learning objectives and ways of achieving these objectives. This is a curriculum with specific attention to student self-development.

Gullekson & Miller (1999) provide accounts of students highly valuing job shadow programs at a community high school. The project was developed by the school advisory committee, and is considered an important step in the career exploration phase

for students. The parents volunteered to be involved in the project, which links jobs in the community, with what students were learning in the Career and Life Management (CALM) course. Preparation for the job shadowing involved students completing a self-assessment of personal values, identification of interests, training and the skill requirement of various jobs, investigation of the labour market to understand job trends, and knowledge of the post-secondary system. Over a five-year period the parent group arranged 465 job shadow sites. The bank of job shadow sites was ever changing and accessible to all students at the school. The important conclusion was that the purpose and value of the job shadow program bears a close relationship to the schools mission statement, which is in part, to develop adaptable learners who are capable of meeting the opportunities of a changing world (Gullekson & Miller, 1999). These authors observe that career programs must do more than just deliver information, rather, they can provide "active learning" with a focus on community relevancy and the potential to help "all" students to experience an enriched education.

Career Development Program Efficacy.

The need to evaluate or consider the efficacy of career education programs has been considered by a number of authors (cf. Bezanson & Riddle, 1995; Black, 1993; Bloch, 1996; Charner, Fraser, Hubbard, & Horne, 1995; Dedmond, 1996; Schultz, 1995; Studd, 1997). In fact, Bezanson & Riddle (1995) have developed a Canadian workbook entitled Quality Career Counselling Services: A Policy Workbook. This is a tool to support the understanding and meeting of client expectations. They describe an emphasis on a vision of quality "principles, practices and policies."

Gitterman et al. (1995) confirm the need for planned systematic educational programs with outcomes that include more than just providing information; programs that involve taking students out of the classroom and into the community. These authors respect that career, academic, and social development are equally important to students and should be equally represented in program planning. Miller (1995) introduces the model of career infusion or integration of career across grade levels and in all subjects. This recommendation follows the conceptualization of career education as addressing careers as not just a single choice at one time, or one unit or course in a curriculum but rather an all-encompassing life-span focus. Students can learn to think about careers as dynamic and know that change is an essential characteristic in their future work.

Soudack (1996) reports on a study of the Toronto Board of Education program Community Based Education for Work, Career and Life (CWCL) pilot project. The goal of this initiative was to develop a model for integrating school and community as complementary, interdependent, and essential learning centers for students. Three schools participated in the project and educational programs included visits to workplaces such as municipal governments, financial institutions, and hospitals. Day-long events were organized at community colleges with presentations and workshops from business on planning for the future.

Soudack (1996) provides data on changes in students' attitudes, knowledge and behaviours with special consideration to changes in at-risk students. Data was collected by means of pre-and post-tests surveys, observations of CWCL activities, and interviews with students, teachers, school administrators and workplace contacts. The cautionary conclusions include noting the CWCL model takes considerable time and effort to

coordinate, however the CWCL increased the students' future orientation. The at-risk students clearly improved their attitudes toward school and in some cases made marked improvements. There were positive effects in taking students out of school, making them feel special, focusing on interests and self-awareness, and by welcoming students in the community.

Performance assessment in career education implies an emphasis on what students can do as well as what students know. Performance assessment of career development in secondary schools is advocated in response to criticisms that traditional evaluations do not yield enough information, with their reliance on multiple choice and short answer evaluation instruments. It is possible to describe learning as more than the teacher lecturing and the student passively receiving information. This view of learning is constructivist and implies that meaningful teaching engages students actively in learning (Marlowe, & Page, 1998). The belief is that knowledge is constructed when students create personal meaning from new information and prior knowledge.

Hutchinson (1996) documents a number of Canadian programs with constructivist approaches to career development. Pathways, one of these programs, has a curriculum that consists of five modules and was the subject of a two-year cohort study (Hutchinson, 1995). The data collected demonstrated that the performance measures developed were sensitive enough to show students change over time and to distinguish between students who had received intensive instruction and those who had not. Reliability was indicated by measures of student retention of performance improvements, in four of the five instructions areas, five months after the intervention.

Charner, et al. (1995), in research about program efficacy, observed that the United States lacks a formal STW transition system and in its place exists a mosaic of programs to help students make the connection between school and work. This study for The Academy for Educational Development's National Institute for Work and Learning (NIWL) involved data on the impact of 14 existing STW transition programs. The research goal was to document and analyze useful models and practices. The research sites represented a variety of career initiatives and included school-based and work-based programs, district-or community-wide efforts and state strategies. The research was based on four day visits and involved interviews of individuals and groups of students, instructors, principals, counsellors, business partners, and government representatives. These researchers observed meetings, classroom activities, and reviewed existing documentation. Their observations include the comment that no single path is right for all students. "The true test of a school-to-work transition system is whether or not it provides the context, information, and resources students need to make the choices and whether it supports them as they move toward their goals" (Charner et al., 1995, p. 40).

This analysis identified 10 key elements that are critical to the success of a STW transition system including:

1. Administrative leadership;
2. Commitment of programs to the role of a career/transition specialist;
3. Cross-sector collaboration of all stakeholders including schools, business, postsecondary, and community partners;
4. Fostering self-determination in all students from the lowest achievers to the college bound;

5. Multiple points of connection between the traditional worlds of work and learning;
6. Students being able to access a range of developmentally appropriate work-based learning experiences;
7. Integration of career information and support services for all students;
8. Building a progressive system that starts before grade 11 to encourage younger students before they become discouraged, disengaged, or drop out of school;
9. Encourage more students to aim for post-secondary training and ensure access to a variety of education and training options; and
10. Creative financing to allocate resources to program development.

The authors conclude by stating that the analysis of exemplary programs provides a comprehensive report on lessons learned.

Schultz (1995) and Dedmond (1996), write about efficacy of career counselling centers and advocate attention to written mission statements and annual reports. They view accountability as achieved by client feedback on the services provided. These authors encourage asking what do clients expect and how can they be served? Dedmond (1996) examines school career services and sees the ultimate goal as students gaining career-planning competencies. Of importance is the role of career program coordinator to develop documentation and a reporting system. "The ultimate self-evaluation of programs ensures the process of continuous program improvement" (Dedmond, 1996, p. 91).

Black (1993) reports on the indicators of effective or strong school-to-work programs including trained school counsellors, a career resource center, use of vocational

interest and aptitude tests, job placement services, and ongoing monitoring of students success. Schools with STW transition programs discover that students are more likely to stay in school instead of dropping out. "For some at-risk kids, the chance to work closely with a caring adult and get more career counselling in schools seems to make the difference" (Black, 1993, p. 27).

Finally, several authors contemplate national strategies to help to make quality career development services available to all students. Hartoonian & Van Scooter (1996) and Golberger & Kazis (1996) ask what the school-to-career movement can contribute to revitalizing high schools. They observe that recent impetus for improving the transition from STW has come from employers concerned about the skills of graduates. These authors believe that STW movement is one of the most promising and energetic reform movements within public education. Their conclusion is that career curriculum should reflect a participation of community and employers in the definition of purpose and the development of resources. Finally, Gullekson & Miller (1999) offer that students want success in finding the right occupation, as well as better career information in order to minimize the culture shock that exists when they enter the world of work. They want rewarding careers.

This present CCNS study of grade 12 career needs will examine client feedback on the career programs and services of high schools. This study will ask questions of the students regarding how school programs and services have helped in career planning, their level of confidence in finding an occupation they love, and if they believe they will get the training or education they need. This fills a gap in the research, as previous research has not asked questions of the students on the effectiveness or efficacy of these

specific career development services and resources. It is hoped that this study will provide new knowledge on what students need and how they can be helped.

Student Needs Research.

Collins (1998) presents innovative research with an emphasis on the assessment of adolescent health related needs. The research rationale was that students are given little say in the determination of high school program priorities. This study of 2903 Calgary high school students, their parents, and teachers focused on the development and implementation of an instrument for assessing adolescent needs, through a bottom-up, student driven process. The core assumptions of this self-report methodology include that: students are capable of understanding and articulating their needs; those needs reflect their particular perception of reality; and they may not be known at the level of professional decision-making.

The research of Collins (1998) documents a theme of students needing proactive life management skills and career education resources. The results of this study emphasize that both parents and school personnel tend to be more reactive and problem-focused while adolescents are future focused and proactive. The author recommends that schools must find ways to give students an active voice in their education and involve them in the process, design, and delivery of curriculum.

Gordon, Couture, & Drefs (2000) in a study of students (grades 1-12), their parents, and school staff, used a "Student Needs Survey." The survey instructed participants to rate each item on a five-point Likert Scale, ranging from "strongly disagree" to "strongly agree" indicating the extent to which the item represented a need for them. The findings for the 170 senior high students and parents were that the highest

perceived need was within the life-planning skills area. The students voiced significant needs concerning career including: career information, post-secondary training, job-related skills, and the wish to be well prepared for the transition beyond high school. These authors reiterate the worth of involving stakeholders, particularly the students in needs assessment with the goal of educators becoming more aware of student priorities rather than inferring the emphasis of educational programs. Finally, the authors remark that if the students believe that their voices have been heard then they will be more engaged and successful in their learning.

Hiebert, Kemeny, & Kurchak (1998) conducted needs assessment research in a medium-sized junior high school, situated in a large western Canadian city. The survey was part of the implementation of a Comprehensive School Guidance and Counselling Program and was administered to students, parents, and staff. The 99 item questionnaire included 15 subscales grouped into three categories including: services, information or skills, and environmental changes. The results of the sample of 318 junior high students were that three of the top five categories of needs pertained to career concerns. Another finding is that parents rank preparation for work as an important function of schools. These authors also conclude that this research demonstrates a student desire to be better prepared for the transition to work or further educational opportunities. This present study will support the student needs research priority, which is that students are able to identify and express their needs (Collins, 1998).

Part III: Rationale for Present Study

The objective of this literature review was to show the path of prior research and how the current study is linked to the developing body of knowledge on this topic. Therefore, the intention was to place this research in the context of current adolescent career development practice and to importantly demonstrate the relevance of this study (Neuman, 2000). To summarize, the sequence of this literature review essentially implies a direction from the broad perspective of adolescent context described in part one, including the topics of world transformation, developmental needs, adolescent identity, and the school-to-work transition. Part two had as a focus career education programs and services, public policy, career curriculum, and importantly attention to adolescent needs assessment research. Now, part three will provide a discussion of the gaps in the literature and the rationale for the present study.

There are currently a number of gaps in the adolescent career development literature that the present study, which provides a snapshot of grade 12 career needs, intends to address. The seven major gaps in the literature that will be the focus of this study are as follows:

1. The conceptualization of adolescent needs occurring as a collaboration between professionals who work with adolescents and researchers who study these adolescents;
2. Attention to the STW transition and the effect of career development curriculum and resources intended to orient students to the vocational tasks of planning and exploring;

3. Recognition that more needs to be understood about the career development factors that contribute to the well-being of youth;
4. The effect of support at strategic points in adolescent career development;
5. Needs assessment research to attend to student voices and student priorities in the delivery of high school career programs;
6. Identification of key supports and barriers to adolescent career plans; and
7. New knowledge on the efficacy of career programs.

A brief elaboration of these seven areas will follow in the discussion of the rationale for the present study.

There is agreement in the literature regarding a transformation in social and economic conditions. The changes brought about by a knowledge-based society include the emphasis on the need for the majority of adolescents to receive some kind of postsecondary education. Career development research advocates the contemplation of appropriate counselling resources for youth (Team Canada, 2000). This present study recognizes the paradigm shift described by several authors (Takanishi, 1993; Hamburg, 1997; and Benson, 1997) who propose the conceptualization of adolescent needs, occurring as a collaborative project between the professionals who work with adolescents and the researchers who study the needs of those adolescents. The CCNS on which the presents author's research is based, was a shared project between the Southern Alberta Center of Excellence for Career Development, the University of Lethbridge, Faculty of Education, the Chinook Regional Career Transitions for Youth project and The Southwestern Rural Youth Career Development project.

The developmental literature also affirms that adolescent development and career development are connected; positive or negative interactions in one area affect the other. Important to this author's study, is the confirmation of the importance of educational programs with a focus on adolescent developmental needs. Adolescence is a period that offers opportunities to assist young people to a hopeful future. A developmental model for the STW transition emphasizes adolescent orientation to upcoming vocational developmental tasks, and instruction in vocational coping behaviours that deal with these tasks especially planning and exploring (Savickas, 1999). This present study will ask how career education delivers a curriculum planned in support of students, as they navigate the complex transition from school-to post secondary training or work. This research will fill a gap in the literature, by asking questions about the importance of career planning in high school and student confidence in their future work, education and training.

The literature on adolescent identity development suggests that identity is the adaption of the adolescents' special skills, capacities and strengths to the society in which they live (Muuss, 1996). Of importance is the observation shared by many theorists (cf. Erikson, 1968; Grotevant, 1992; Vondracek & Skorikov, 1997; & Blustein, 1994) that vocational or career development contributes to overall adolescent identity development. Societal transformation and the adoption of the PI model of career means that career development services are now oriented to help individuals not choose their careers, but to construct them (Peterson & Gonzales, 2000). This involves adolescents engaging in activities of personal meaning making in order to establish self-identity (Watts, 2000). Career meaning can be created through involvement and dialogue about activities such as career planning process and resources, career portfolios, work experience, and job

shadowing. This is a social constructivist career and necessitates a change from the priority of providing occupational knowledge, to a career development model that emphasizes self-exploration and the development of lifelong exploratory attitudes (Blustein, 1997a). Exploration and commitment are generally acknowledged as the principal method by which adolescents move toward the development of a self-chosen vocational identity (Vondracek & Skorikov, 1997). Previous research confirms that more needs to be understood about the career development and socialization of youth to understand the factors that contribute to their well-being as young adults (Human Resources Development Canada, 1998). This study was not designed to be constructivist in nature, however some of the open-ended questions gave a small opportunity to document the breath of student responses. This present research, in asking questions about choice of work assuming education or training and why this work is chosen, examines constructs of career meaning, career narrative, self reflection and exploration in adolescent career identity.

Important to this research is the confirmation that adolescents negotiate the challenges and momentum of career exploration more easily, if they receive support, nurturing, and resources from family, school, and community. This is the quality of environments that fosters self-discovery (Blustein, et al., 1995). "This also imparts a change in roles for career development services as many individuals will need support at strategic points in managing their career development (Watts, 2000, p.282)." This study in asking questions about the individuals which were most helpful to grade 12 careers, documents supportive relationships as a factor in adolescent career development.

The STW transition is complex and involves the influence of psychological and social factors, the context or environmental influences, and economic conditions, all impacting career development initiatives. A critical observation is that the STW research provides an emphasis on global outcomes, but gives limited attention to the individual experience of youth (Blustein et al., 1997). This CCNS research fills a gap in the literature by undertaking a student needs assessment study, with the goal of paying attention to "student voices" and understanding student priorities for the delivery of career education programs. Students are still largely excluded from the decision-making process that translates the research data, into program objectives and strategies (Collins, 1998). Watts (2000) contends that more market research is needed on consumer perceptions and needs. Team Canada (2000) "Recommends that ongoing research and development needs to be done to ensure innovation in materials and services (p.115)."

Lowe, Krahn, & Bowlby (1997) in a major study of 1000 Alberta high school seniors, examined school-to work factors including further educational plans, the relevance of the high school education and career goals. These authors recommended that priority be given to conducting research, which identifies the key supports and barriers to students' educational and career goals. Once again, in asking questions on factors of encouragement and discouragement in career plans, this CCNS study reflects this research recommendation.

Documentation of the changes to the educational requirements of the Canadian labour market emphasizes the connection between post-secondary credentials and employment (Little, 1998). The event of high school or post-secondary graduation represents a major labour market entry point and there is confirmation of the importance

of career information and support in career decisions (Team Canada, 2000). Career education is delivered with the goal of engaging high school students in the development of skills, knowledge, and attitudes that support individual career plans (Bezanson & Hiebert, 1997). Research evidence demonstrates that career development programs can be structured to be both accountable and pragmatic (Hutchinson, 1995). The Canadian literature is rich in articles and program descriptions. This present research contributes to the body of knowledge on career programs efficacy.

Conclusion.

To close these gaps, the present study focuses on the ever-present need for informed career development policy decisions (Minister of Public Works and Services Canada, 1998). More specifically this study examines how career education programs can be planned to respond to expressed adolescent needs. Information will be gathered in the present study through analysis of the subject's responses to the CCNS questionnaire. It is anticipated that this research will contribute to new understandings of grade 12 students' career plans, the availability and use of career programs and services and an understanding of what would be helpful for these career plans. In conclusion, many of these identified research goals reflect an increased recognition of the important role of the educational system, in collaboration with community partners, in fostering the career development of adolescents. This CCNS research will be attentive to student needs, listen to the voices of the students, and gain new understanding of their career development needs.

CHAPTER III

Method

The method used for this study will be presented in this chapter. A description of the background of the study, ethical standards, the sample, the research instrument, and a review of data collection procedures is provided. This research will undertake both a quantitative and qualitative data analysis of the expressed career education needs of grade 12 students.

Background

This study is based on data from a much larger study, The Comprehensive Career Needs Survey (CCNS). The CCNS was a shared project between the Southern Alberta Center of Excellence for Career Development, the University of Lethbridge, Faculty of Education, the Chinook Regional Career Transitions for Youth project and The Southwestern Rural Youth Career Development project. The purpose of the CCNS was to explore the career planning perceptions, understandings, and needs of students grades 7 through 12 in Southern Alberta. (Magnusson & Bernes, 2001)

The CCNS was designed by Dr. Kris Magnusson and Dr. Kerry Bernes to assess the career needs of Junior High and Senior High School students. The questionnaire consisted of five different forms: parent, administration, CALM teachers/counsellors, teachers and students. The surveys were supplied to the Junior and Senior High schools in Lethbridge and surrounding areas. The school districts that participated in the study included Palliser, Holy Spirit, Horizon, Kainaiwa, Lethbridge, Westwind, Livingstone Range and Peigan. In total 54 schools received the survey and 52 schools returned completed forms. The survey consisted of questions regarding the individual evaluation

of career education and support needs within each particular school. Topics included perceived resources and needs, educational needs, future goals and aspirations (student forms) or areas of professional development (teachers, administration, counsellors). The surveys were colour coded in order to distinguish between the five possible formats. An identification number was located in the top right corner of every survey. This number indicated the school that the survey originated from and individualized the surveys, while maintaining confidentiality.

The present study is pursued within the larger framework of the CCNS study. The purpose of the present research was to examine the grade 12 data and provide a snapshot of the career curriculum experiences of these grade 12 students. Career plans and career help were assessed from a quantitative perspective thorough the use of single response questions, categorical response questions, rating scales, and Likert rating scales. Many of these questions also had an open-ended response space, thereby adding a qualitative component to this study.

Informed Consent

A proposal was submitted to the Human Subjects Research Committee at the University of Lethbridge (see Appendix B). This committee approved of the designed questionnaire and permitted the researchers to distribute the questionnaire. Informed consent forms were first presented to the School Superintendent of each individual school (see Appendix B). When the School Superintendent had signed the consent form, an informed consent form was provided to the school principal. Upon approval of the school principal, the students, teachers and parents received a consent form. The questionnaire was supplied to each individual school and the surveys were administered to each student

at the discretion of the teacher. These consent forms ensured that the subjects were aware that participation was strictly on a volunteer basis. However these researchers are also aware that the volunteer participation of students is ultimately dependent upon the presentation of the questionnaire by the teacher. Due to the rate of completion, (7816 students of a possible 15,000) the researchers can be reasonably certain that not all individuals participated and that volunteer participation can be assumed. A total of 9502 responses were received, including 4419 Junior High School students, 3397 Senior School students, 1314 parents, 104 teachers/administrators and 268 counsellors or CALM teachers.

Sample

The CCNS High School Form (see Appendix A) is a self-report measure and the instrument was administered to senior high students, Grades 10 through 12 during classroom periods. The present study focuses on the collected data for the 888 subjects who are grade 12 students. The surveys were collected from the schools and categorical data regarding the subject's grade level, age, size of school and size of community were obtained in the demographic section of the questionnaire. The complete list of demographic items that were examined and analyzed in the present study can be found in Appendix A.

As presented in Table 1, the majority or 72.4% of these students are 17 years of age, while 24.2% are 18 years, and 2.7% are 19 years.

Table 1

Demographics: Age of Participants

Age	n	%
16	7	0.8
17	642	72.4
18	215	24.2
19	24	2.7
Total	888	100.0%

The high school population size presented in Table 2, is more than 100 but less that 500 for 78.4% of the respondents, more than 500 but less that 1000 for 14.6%, and more that 1000 for 6.5% of the sample.

Table 2

Demographics: Size of School Population

Response	n	%
100 or less	4	0.5
More than 100 but less than 500	696	78.4
More than 500 but less than 1000	130	14.6
More than 1000	58	6.5
Total	888	100.0%

In some instances not all of the respondents answered all of the survey questions, therefore Table 3 profiles the 884 recorded responses. The majority of these students (71.5%) are in communities that have populations of more than 1000, but less that 10,000, while 22.5% are in communities with a population of 10,000 or more people.

Table 3

Demographics: Population of the Town or City

Response	n	%
Less than 1000	53	6.0
More than 1000 but less than 10,000	632	71.5
10,000 or more	199	22.5
Total	884	100.0

Data Collection Procedures

Questionnaire

The CCNS High School Form (see appendix A) asked students questions in a 19 item questionnaire, containing 3 subscales grouped into three categories: General Information, Career Plans, and Career Help. The questionnaire design allowed for the examination of multiple factors linked to grade 12 career needs. Both quantitative and qualitative data analysis was used in this study.

Data Analysis

Quantitative Data Analysis

Quantitative data was collected and yielded descriptive statistics. The CCNS questionnaire utilizes structured questions (Palys, 1997) in the following formats:

1. Single-Response Items, which give respondents an empty blank space in which to write or indicate their response. These items are Part A: General Information Questions 1 and 2. The results are reported as frequency scores and as a percentage of the total sample. This information will be presented in tables.
2. Categorical-Response Items, which present categories in which respondents may place themselves. These questions are Part A: General Information, Questions 3

and 4 and Part B: Career Plans, Questions 9 and 13. Part B: Career Plans, Question 8. Is a multiple-response item, which allows the respondent to check all responses that apply. These results are reported through the use of the descriptive statistics of frequency counts and percentages. This information will be presented in tables.

3. Rating scales ask the respondents to rate concepts on the basis of attributes in Part B: Career Plans, Question 14. This result is reported through the use of descriptive statistics including frequency count and the percentage of the total sample. This information will be presented in a table.

4. Likert Rating Scales begin with an assertion and ask respondents to indicate the extent to which they agree or disagree. Part C: Career Help, Questions 15, 16, 17, 18, and 19 are Likert items. The responses to these questions are reported through the use of descriptive statistics, which are frequency counts, and percentages. This information will be presented in tables. To measure the central tendency of the responses to Questions 15, 16, 17, 18, and 19, the mean score for each item will also be calculated. The mean score will provide an indicator of the relative importance of the responses for each item presented in these questions. In addition, the standard deviation or the average variance between all scores and the mean (Neuman, 2000; Palys, 1997) will be calculated for the responses to each item in these questions. The standard deviation will provide a comparison measure when analyzing the variation of the data to the mean score for each item in these questions. The mean rank score for each item in these questions will be presented in the form of tables and indicates a

ranking from highest to lowest score. The corresponding standard deviation measure for each item in these questions will also be represented within the table.

Qualitative Data Analysis

The CCNS open-ended response questions are found in Part A: General Information Questions 5 and 6, and Part B: Career Plans Questions 10, 10a), 11, 12, 13 a), and 13b). With respect to these qualitative research questions, this study used twenty-five percent of the overall sample or 225 surveys. The surveys selected are representative of all school populations and school communities. Schools originating from large communities (10 000 or more), medium sized communities (more than 1000 but less than 10 000) and smaller communities (less than 1000) were randomly extracted from the sample by the researcher.

A coding taxonomy was derived from the content analyses of the open-ended questions, in order to describe the students' responses to these open-ended questions, as well as analyze the responses. First, open coding was performed, which involved placing the responses into categories, which formed the basis for the development of themes (Neuman, 2000). The researcher then categorized the student responses using the method of constant comparisons, to reduce rating drift and maintain high reliability (Creswell, 1998). The themes were coded and the frequency and percentage of each coded theme is presented in tabular form.

This researcher performed the initial coding of the data. However, once the codes and themes were established, and frequency and percentages calculated, two graduate students were asked to review the codes and themes to provide validation. The other raters identified the same themes (Neuman, 2000).

Summary

This chapter has provided a description of the background of the study, ethical standards, the sample, the research instrument, the data collection procedures, and the methods of data analysis. The results of the qualitative and quantitative data analysis will be presented in the Chapter 4. The implications of the results and recommendations for future research will be discussed in Chapter 5.

CHAPTER IV

Results

This chapter will describe and analyze the results generated from the CCNS questionnaire (see Appendix A) with the intention of providing information and understanding of the career needs of grade 12 students. The results for all categorical response questions will be reported as frequencies and as a percentage of the total sample. For the Likert item questions, the results will be reported as frequency scores, percentages, as well as mean scores and standard deviations. Relative to the mean scores, they were calculated for each Likert question and subscale, by using the range from 0 to 4. "Don't Know" was assigned a score of 0, "Very Helpful" was assigned a score of 4 and "Quite Helpful" a score of 3 and "Somewhat Helpful" was assigned a score of 2.

The number of respondents for each question may vary slightly. This variance in response to individual questions is due to the following reasons:

1. In some instances students may have answered some questions fully and omitted other questions; and
2. With respect to the results of the open-ended research questions, at times the respondents may have replied with more than one response to each question. Therefore the total number of coded responses does not always equal 225.

The results for each of the three parts of the CCNS questionnaire Part A: General Information, Part B: Career Plans, and Part C: Career Help will now be presented.

Part A: General Information

Research Question 1: What does the term "occupation" mean to you?

Information on how respondents conceptualize occupation was sought and the results are presented in Table 4. In order to describe the students' responses to this open-ended question, the responses were coded into categories, which formed the basis for the development of themes. The themes were coded and the frequency and percentage of each coded theme is presented.

There were 225 responses to this question. The majority viewed occupation as a job or task and they acknowledged the need to earn a living (n = 117; 52%). A specific field of work or job title is a meaning attached to the term occupation (n = 31; 13.7%) and the concept of chosen work or job is also reported (n = 17; 7.5%). The idea of present job or what you are doing (n = 16; 7.1%) and occupation as only short-term, not lifelong, with a minimum level of training (n = 16; 7.1%), and unfulfilling, not a career (n = 9; 4%) is reported. There is validation of the requirement for learning/experience when defining occupation by (n = 8; 3.5%). No response to the question was given by (n = 9; 4%) of this group of grade 12 students.

Table 4
Responses to the question "What does the term occupation mean to you?"

Response	n	%
Job or task to earn a living	117	52
Field of work/job title	31	13.7
Chosen work/job	17	7.5
Short term/not lifelong/minimum training	16	7.1
Job you are doing/have	16	7.1
Unfulfilling, not a career	9	4.0
No response, some confusion	9	4.0
Learn to do/experience/get paid	8	3.5
Part-time while in school	2	.8
Total	225	100

Research Question 2: What does the term "career" mean to you?

Information on how respondents conceptualize career was sought and the results are presented in Table 5. There were 225 responses to this question. In this open-ended question the themes were coded and the frequency and percentage of each coded theme is presented.

The greatest number (n = 49; 21.7%) of the students describe career as a practice for entire lifetime. Others, described career as what you do for a living, to get paid, and expressed the theme of stable job (n = 40; 17.7%). The responses documented awareness of requirements for further education and specialized training for work (n = 31; 13.7%). In an implied participation in career education programs (n = 23; 10.2%) students suggested that "career" was a series of roles or jobs, work related activities, and hobbies over the lifetime. This theme is consistent with developmental career theories (Super, Savickas & Super, 1999). The students viewed career as the ability to choose a role or job (n=20; 8.8%) and as a job/profession that they really liked (n = 11; 4.8%). Progress in job one liked and being involved in work was reported by (n = 15; 6.6%) of the students. A

future sense was validated (n = 12; 5.3%) in the descriptions of career as seeking the future and a goal for the rest of their life. A number of this group of students (n = 6; 2.6%) gave no response. A minority of the sample expressed the altruistic values of satisfaction being more important than money (n = 2; .9%) and the need to make a contribution to society (n = 1; .45 %).

Table 5

Responses to the question "What does the term "career" mean to you?"

Response	n	%
Long term, practice for entire life	49	21.7
Do for a living/get paid/keep a stable job	40	17.7
Further education, trained, specialized	31	13.7
Jobs/occupations/ throughout lifetime	23	10.2
Choose my role/job	20	8.8
Progress, job I like, & involved in	15	6.6
Goal for rest of life/seeking future	12	5.3
Job/profession really like & paid for	11	4.8
What I do after graduating from high school	7	3.1
No response/some confusion	6	2.6
Job want to do for life	5	2.2
Job success, financially & mental satisfying	3	1.3
Satisfaction more important than money	2	.9
Contribution to society	1	.45
Total	225	100

Part B: Career Plans

This section of CCNS questionnaire yielded data on post-secondary or work plans, importance of work in home community, future work plans and reasons for choices, the factors of encouragement and discouragement in career plans, expressed importance of career plans, what would be most helpful to career planning, and people most comfortable in approaching for help in career plans. To assist in the structure or organization of the data, the results are presented under each corresponding research question.

Research Question 3: Which of the following best describes your plans for what you will be doing after you have completed high school?

This is a categorical-response item, which presents categories in which respondents may place themselves. The results are reported through the use of descriptive statistics, which are frequency counts, and percentages. As noted in Table 6 there were 886 useable answers to this question. The majority is able to conceptualize a career plan. Most grade 12 students have a specific plan and have reached a stage of commitment and decision-making (n = 351; 39.6%) or indicate that they are deciding between two plans (n = 375; 42.3%). The minority of this group of grade 12 students (n = 111; 12.5%) is unsure of their destination after high school, but have started to plan or respond that they don't know or do not have career plans (n = 49; 5.5%).

Table 6

General Descriptors of Planning: Grade 12 Students After High School

Response	n	%
a) Specific plan	351	39.6
b) Deciding between two plans	375	42.3
c) Not sure but working on it	111	12.5
d) Don't know and not worrying	49	5.5
Total	886	100.0

Research Question 4: Which of the following describes what you think you will most likely be doing in the year after you leave high school? (Please check as many options as apply to you).

This is a categorical-response item, which presents categories in which respondents may place themselves. Multiple-response items allow the respondent to check all responses that apply. The results are reported through the use of descriptive statistics including frequency counts, and percentages. As reported in Table 7, there were 810 useable answers. Students were given the opportunity to select more than one option; therefore the frequency results are reported for each category of the question.

The majority of this sample reports the goal of full-time studies at a university or college or technical institute (n = 398; 49.1%), or part-time studies (n = 126; 15.6%), as well as plans for other types of training (n = 68; 8.4%). Therefore, 73.1% of these grade 12 students report a plan to enter post-secondary education or training. Another 4.8% of the students plan to continue their education by returning to high school. The option of full time work (n = 217; 26.8%) and part-time work (n = 235; 29%) is reported. Lastly, a number of the sample (n = 143; 17.7%) reports the option of travelling in the year after high school.

Table 7

Specific Plans: Grade 12 Students After Leaving High School

Response	n	%
a) Taking full-time studies at a university, college or technical institute	398	49.1
b) Taking part-time studies at university, college or technical institute	126	15.6
c) Taking other types of training	68	8.4
d) Returning to school full-time	39	4.8
e) Working full-time	217	26.8
f) Working part-time	235	29.0
g) Working as a volunteer	46	5.7
h) Travelling	143	17.7
i) Other	92	11.4
Total	810	100.0

Research Question 5: How important is it to you to be able to find work that allows you to stay in your home community?

This is a categorical-response item, which presents categories in which respondents may place themselves. These results are reported through the use of descriptive statistics including frequency counts, and percentages. Table 8 notes there were 884 useable answers to this question. The results suggest that work in the home community is not a priority for most of the students with reports of not at all important (n = 385; 43.6%) and slightly important (n = 249; 28.2 %). Only a minority indicates work in the community as quite important (n = 77; 8.7%), while only a few views this factor as very important (n = 173; 19.6%).

Table 8

Importance of Work in Home Community

Response	n	%
Very Important	77	8.7
Quite Important	173	19.6
Slightly Important	249	28.2
Not at all Important	385	43.6
Total	884	100.0

Research Question 6: If you had to start work tomorrow, and assuming that you had the proper education or training, what kind of work would you most likely choose?

In this open-ended question the themes were coded and the frequency and percentage of each coded theme is presented. A number of the respondents identified two or more career choices, and all choices were recorded. Therefore 299 coded responses are presented in Table 9. The student career choices were organized according to the major occupational categories of the National Occupational Classification Index of Titles or (NOC) codes (Employment & Immigration Canada, 1993). Of interest is the complexity and range of occupations identified by the respondents.

The greatest expressed preference was for occupations in education and social services (n = 51; 17.0%), followed by health professions (n = 45; 15.0%). The next frequent response that the students indicated was technical/health/sciences (n = 44; 14.7%) and then natural and applied science (n = 20; 6.6%). A notable finding was the number of students who chose skilled trades (n = 28; 9.3%). These results represent an increase from the figure of 4% selecting apprenticeship trades as reported in the research of Lowe, Krahn, & Bowlby (1997).

Other major categories of career choice was management (n = 19; 6.3%) and business/finance (n = 17; 5.8%), paraprofessionals, which include photography, acting and working with people (n = 18; 6.0%), and occupations in the field of culture and fine arts (n = 15; 5.0%). A minority (n = 6; 2%) indicated unskilled occupations.

Essentially, the occupational choice results profile a trend of 79.5 % of this sample that plan work that requires post-secondary education or training after their grade 12 year. Yet, a number of students (n = 23; 7.6%) did not indicate an occupational choice or provided a response such as "I do not know" or "Not a clue" to the question of occupational choice, assuming proper education or training. High school career decisions are complex and imply requisite career exploration and career maturity. Conversely, we can ask if this documents a difficult STW transition or more limited career prospects and lack of belief in a promising future for 7.6% of this group of students.

Table 9

Responses to the Question "If you had to start work tomorrow, and assuming that you had the proper education or training, what kind of work would you most likely choose?"

Response	n
Professional Education/Social Services	
Teacher	17
Child/youth worker	8
RCMP/police/criminology	8
Elementary school teacher	8
Social worker	5
PhysEd teacher	3
Minister/philosopher	2
Total	51
Percentage of total sample	17.0%
Health	
Medicine	12
Psychologist/sociologist	6
Chiropractor/naturopath	6
Physiotherapy	5
Nurse	4
Veterinarian	2
Recreation therapy	2
Dentistry/optometrist	2
Pharmacy	2
Sports medicine	2
Counsellor	1
Nutrition counsellor	1
Total	45
Percentage of total sample	15%
Technology/Science /Health	
Athletics/sports trainer	9
Computers	8
Electronics technician	5
Emergency medical services	5
Nature & outdoors	3
Wildlife officer	3
Lab technician	2
Zookeeper/veterinary assistant	2
Medical field/medical technician	2
Dental assistant	2
Firefighter	1
Oil patch	1
Museum	1

Total	44
Percentage of total sample	14.7%
Trades/ Skilled Blue Collar	
Mechanic	7
Welder	6
Chef	6
Carpentry/dry wall	3
Trade	3
Armed forces	1
Truck driver	1
Machinist	1
Total	28
Percentage of total sample	9.3%
Natural/Applied Science	
Engineering	5
Environment/marine biology	5
Researcher	4
Science	2
Archeology	2
Architect	1
Aerospace engineering	1
Total	20
Percentage of total sample	6.6%
Management	
Business/government	6
Web page/graphics/animation	5
Office administrator	2
Entrepreneur	2
Farming	2
Advertising	1
Hotel management	1
Total	19
Percentage of total sample	6.3%
Para professional/Soc Sc/Arts/Culture	
Helps/deals with people	6
Photographer/films	5
Acting	4
Daycare	2
Coaching	1
Total	18
Percentage of total sample	6.0%
Business/Finance	
Finance/bank/accounting	10
Lawyer	4
Advertising/marketing	3
Total	17

Percentage of total sample	5.8%
Skilled Sales/Service	
Interior design	3
Tourism/services	3
Travel agent	3
Hairdresser	2
Aviator	1
Airline stewardess	1
Total	13
Percentage of total sample	4.3%
Culture	
Fine Arts/music	11
Journalism/writer	4
Total	15
Percentage of total sample	5.0%
Unskilled/blue collar	
Retail	3
Labour	3
Total	6
Percentage of total sample	2.0%
Don't know/incorrect response	23
Percentage of total sample	7.6%
Total Number = 299	100%

Research Question 7: Why would you choose that kind of work?

In this open-ended question, the themes were coded and the frequency and percentage of each coded theme is presented. There are 254 responses to this question, as a number of the respondents identified two or more reasons for career choice. All responses were viewed as significant and therefore recorded.

These results are vivid in the documentation of the complex and varied reasons for grade 12 career choices. There were seven main themes that emerged from this data (see Table10). The first theme revolved around interests. In other words many respondents (n = 63; 24.9%) indicated that their interests guided their selection of ideal career. Examples of interest-based factors included "It interests me" (n = 27), "Involves things I like to do" (n = 6), and "It's what I want to do/like" (n = 6). Other respondents

identified specific "likes" or "interests" including math, the outdoors, to teach it, to make learning fun, sports, to write, school, to work with my hands, design, and electronics.

The second major theme identified as reason for career choice was working style (n = 53; 21.7%). Examples of specific responses in this theme were "Like working with children/teens" (n = 18), "Enjoy working/communicating with people" (n = 13), and "Feel good helping others" (n = 11). Other more specific responses for working style included challenging/independence, exciting, and solving problems. The next major theme displayed by the respondents (n = 44; 20.5%) was specific awareness of job requirements or labour markets. Examples of these responses included "Money/security/stable" (n = 15), "Enjoy the field" (n = 9), "Interesting field" (n = 7), and "Have job experience" (n = 4). In another key theme these students seemed cognizant of both individual skills and talents (n = 32; 12.6%) for example "Good at it" (n = 20), and "I'm very skilled" (n = 6), and "Skills/enjoy computers" (n = 3). An important theme was the connection between career and personal passions for (n = 28; 11.0%) of the sample. Examples of specific response within this theme included: "Enjoy/like/love it" (n = 11), "Looks like fun" (n = 6), and specifically a series of loves such as cars, travel, knowledge, painting, theater, and being happy. A number of respondents did not reply or responded inappropriately to the question (n = 17, 6.3%).

There is evidence of differentiated self-knowledge, as well as self-reflection in the reasons given for career plans. These grade 12 students appear to possess important self-knowledge as a pre-requisite to their career choices. This is a group of students who describe career as more than earning an income and view career as the expression of passions, talents and personal meaning.

Table 10

Responses to the question "Why would you choose that kind of work?"

Response	n
Interests	
It interests me	27
Like science	7
Involves things I like to do	6
It's what I want to do/like	6
Like math	3
Like outdoors	3
Like to teach it	3
Like to make learning fun	2
Like doing things with sports	1
Like to write	1
I like school	1
Like to work with my hands	1
Like design	1
Like electronics	1
Total	63
Percentage of total sample	24.9%
Working Style	
Like working with children/teens	18
Working/communicating with people	14
Feel good helping others	11
Enjoy working & protecting animals	2
I would enjoy the work	2
Challenging/independence	1
Exciting, something new every day	1
Opportunities/new ways to do things	1
Physical demands	1
To help people with injuries	1
Enjoy helping to solve problems	1
Business is constantly changing	1
Like to work in the community	1
Total	55
Percentage of total sample	21.7%
Knowledge of job requirements/labour market	
Money/security/stable	22
Enjoy/like the field	9
Interesting field	7
Have job experience	4
Growth is good	2
Demand for it	1
Have the grades to make a choice	1

Many possibilities	1
I know a lot about it	1
Working with my dad	1
A job I have always wanted to do	1
Always liked owning my business	1
Total	51
Percentage of total sample	20.1%
Awareness of Skills & Talents	
Good at it	20
I'm very skilled	6
Skills/enjoy computers	3
Enjoy being a leader	1
Talented in those areas	1
Good at sports	1
Total	32
Percentage of total sample	12.6%
Passions	
I enjoy/like/love it	11
Looks like fun	6
I love cars/motors	2
Love to travel	2
For the knowledge	2
Love marine life	1
Love painting & drawing	1
Love theatre arts	1
I would be happy	1
Enjoy learning about the field	1
Total	28
Percentage of total sample	11.0%
No/inappropriate response	17
Total	17
Percentage	6.3%
Contribution to Society	
Help people who are suffering	2
Advance the human race	2
I would make a difference	2
Total	6
Percentage of total sample	2.3%
Other	
I'm not sure	1
That's all I could probably do	1
Total	2
Percentage of total sample	0.7%
Total Number =254	100%

Research Question 8: What are you most encouraged about when you think about your career?

In this open-ended question, the themes were coded and the frequency and percentage of each coded theme is presented. Many of the students choose to indicate two or more key factors in encouragement of career. Because of the scope and quality of these responses, the researcher made the decision to record all factors of expressed encouragement, therefore 276 responses are reported in Table 11.

The grade 12 students identified ten main themes of encouragement for career plans. Adequate income or making money to afford wants and needs was the top priority for the students (n = 75; 27.1%). The importance of success in career and work satisfaction was the second theme for the respondents (n = 58; 21.0%). The key factors identified for the success in career theme included: "Creativity/fun/ excitement/challenge" (n = 14), "Opportunities for success/lots of good jobs" (n = 9), "Happy in choice/love career" (n = 9), "Interacting/meet interesting people" (n = 7), and "Contributing to society" (n = 6). Enjoy work and involved in work was the third key theme (n = 30; 10.8 %). A future sense or life role was indicated by the students (n = 25; 9%) in voicing factors of encouragement such as "Grown up responsibilities/independence" (n = 11), "Travel/work in different places" (n = 7) and "Steady/secure job future" (n = 6).

Personal strength awareness was the fifth theme (n = 19; 6.8%) and included responses like "Good at it/have post-secondary requirements" (n = 8), "Interests" (n = 4), and the additional strengths such as working outdoors, owning a business and keeping fit. The last themes expressed in the data on encouragement in career were helping, teaching,

changing a life (n = 18; 6.5%), learning/personal development/skills/new knowledge (n = 15; 5.4%), working with children (n = 9; 3.2%), and support from parents and others (n = 2; .72%).

This result suggests the majority of these students evidence the self-knowledge, self-exploration and the preliminary clarification of aims and aspirations as a prerequisite to informed career decisions. These results also document students (n = 25; 9%) who chose not to answer the question on factors of encouragement. It is possible to express concern about this segment of the grade 12 population, who evidence a lack of personal relevance in the discussion of their career plans. This minority result presents a strong contrast to the majority of the respondents who evidence positivity and a complexity of responses in both the main themes of success/work satisfaction and personal strength awareness.

Table 11

Responses to the question 8 :"What are you most encouraged about when you think about your career?"

Response	n	%
Making Money/Afford Wants & Needs/Saving	75	27.1
Importance of Success/Work Satisfaction		
Creativity/fun/excitement/challenges of endeavors	14	
Opportunities for success/lots good jobs	9	
Happy in choice/love career	9	
Interacting/meet interesting people	7	
Contributing to society	6	
Achieving my goals/dreams	4	
Success/self-motivation/fame	3	
Contributing good work thus good career	2	
Finding/doing career I like	2	
Choose right training & be good at it	1	
Religious calling	1	
Total	58	21.0
Enjoy Work/Involved in Work	30	10.8
Future Sense/Life Role		
Means grownup responsibilities/independence	11	
Travel/work in different places	7	
Steady/secure job future/stable lifestyle	6	
Hours/type of work	1	
Total	25	9.0
No/Inappropriate response	25	9.0
Personal Strength Awareness		
Good at it/potential/have post-secondary requirements	8	
Interests	4	
Own a business/be the boss	2	
Fitness/ work outside	3	
Finished product/building things	1	
Course at school e.g. hairdressing	1	
Total	19	6.8
Helping/Teaching/Changing a Life	18	6.5
Learning /Personal Development/Skills/New Knowledge/Fun	15	5.4
Working With/Helping Children	9	3.2
Support/Parents & Others	2	.72
Total Number	276	100

Research Question 9: What are you most discouraged about when you think of your career?

In this open-ended question, the themes were coded and the frequency and percentage of each coded theme is presented. In the instances where respondents indicated two or more factors of discouragement, all were deemed important and recorded by the researcher. Therefore the total number of recorded responses in Table 12 is 245.

There are seven main themes of expressed discouragement for career in this data. The first theme or factor of discouragement was the nature of working conditions (n = 61; 24.8%). These students articulate concerns such as "Hard work" (n = 13),"Stress/ damaging my health/shifts/safety" (n = 10), "Working outdoors/indoors/uncomfortable workplace" (n = 6) "Good/bad/unfriendly co-workers" (n = 6), "Work I will do/dealing with death" (n = 4), "Type of clients" (n = 4), "Being committed to one job/do every day for rest of life (n = 5," and "Competition in profession" (n = 4). The second theme was of the expressed difficulty of post-secondary training (n = 60; 24.4%). The respondents reported such factors of discouragement such as "Long/challenging training/schooling" (n = 35), "Costs of programs /economic struggles to get a good career" (n = 12), "Grades/acceptance into post-secondary program (n = 5), and "Getting the proper training/getting into right career" (n = 4). The third theme (n = 54; 22.0%) centers on personal factors of success in career. The factors identified included "Finding work/where I will work" (n = 14), "Not finding a job that I love/like/enjoy" (n = 9), "Patience /fear of mistakes/taking risks (n = 7), and "Not succeeding/being able to do it" (n = 7). Salary/not making enough money/lack of high paying jobs was the fourth theme

expressed (n = 16; 6.5%), the fifth theme was work schedules/long hours/work every day at the same time (n = 14; 5.7%), and the sixth was completing training and not finding a good job/job security /future job demand (n = 12; 4.8%). Finally, a segment of the grade 12 students (n = 24; 9.7%) who did not respond to the question of factors of discouragement in career plans; it can be asked, why is there a discomfort for this group of students in giving voice or personal expression to barriers to career.

It seems that functional factors of the nature of work environments were prominent. Important to contemplate are the identified challenges, costs and access to post-secondary training. This suggests that the grade 12 students recognize the realities or rigour of education beyond high school. These results confirm previous research on the need for support for the transition experience of grade 12 students to post-secondary institutions. Affirmed is the importance of the provision of career counselling and education programs to inform students about the nature of transitions, to attend to and understand their expressed needs, and to increase their ability to cope in facilitating access to career resources (Arthur & Hiebert, 1996). This data also documents the student concerns about obtaining good jobs following post-secondary training. The results validate the career development practice of publishing labour market statistics as a resource to enable informed career decisions (Krahn & Lowe, 1998).

Table 12

Responses to the question "What are you most discouraged about when you think of your career?"

Response	n	%
Nature of Working Conditions		
Hard work	13	
The stress/damaging my health/shifts/safety	10	
Working outdoors/indoors/uncomfortable workplace	6	
Good/bad/unfriendly coworkers	6	
Being committed to one job/do every day for rest of life	5	
The work I will do/dealing with death	4	
The competition in profession/effort to move up	4	
The type of clients I will work with	7	
Job quality/ being able to help	2	
Reporting to higher authority	2	
Time & effort to move up the ranks	1	
Racism & discrimination	1	
Total	61	23.9
Post-secondary Training		
Long/Challenging training/Schooling	35	
Cost of program/economic struggles to get a good career	12	
Good grades/Acceptance into the post-secondary program	5	
Getting proper training/Getting into right career	4	
Move away to school	3	
Access to university program when you do not live in the city you wish to study	1	
Total	60	23.5
Personal Factors of Success in Career		
Finding work/Where will I work?	12	
Not finding a job that I love/like/enjoy	9	
Not succeeding/being able to do it	7	
Patience/fear of mistakes/risks	7	
Will I be able to do the career for the rest of my life?	3	
Finding a career boring/hate	3	
Independence/Starting out	3	
Doing something I'm not interested in	2	
Too involved in career/away from home	2	
Qualifications	1	
Moving to different companies	1	
Changes in occupation	1	
Moving away from home /friends	1	
My family	1	
Will people like my work	1	
Total	54	21.1

No Response, Incorrect Response	24	9.4
Salary/Not Making Enough Money, Lack of High Paying Jobs	16	6.2
Work Schedule, Long Hours, Work Every Day at the Same Time	14	5.4
Completing Training & Not Finding a Good Job/ Job Security/ Lack of Work/ Future Job Demand	12	4.7
Other		
Not sure what job I will choose/If I will be able to decide	7	
Not discouraged	7	
Total	14	5.4
Total Number	255	100%

Research Question 10: How important is career planning to you at this time in your life?

This is a categorical-response item, which presents categories in which respondents may place themselves. These results are reported through the use of descriptive statistics, include frequency counts, and percentages. As noted in Table 13 there were 882 useable answers to this question. The results report students who regard career planning as "quite important" (n = 352; 39.9%) or "very important" (n = 307; 34.8%). Therefore 74.7% of students view career planning to be extremely important in the grade 12 year.

Table 13

Importance of Career Planning at This Time in Life

Response	n	%
Very Important	307	34.8
Quite Important	352	39.9
Slightly Important	169	19.2
Not at all Important	54	6.1
Total	882	100.0

Research Question 10a: If career planning is NOT very important to you now, when might it become important to you?

In this open-ended question, the themes were coded and the frequency and percentage of each coded theme is presented. Table 14 confirms only the minority of the respondents (n = 21) did not view career planning as very important in the grade 12 year. Factors which would result in career planning becoming important to these subjects include: "Important after high school" (n = 4), "In a year or two" (n = 2), "When I'm in post-secondary school" (n = 3), "Later more options to learn about" (n = 2), "End of university /college years" (n = 2) and "No response" (n = 2).

Table 14

Responses to the question "If career planning is NOT very important to you now, when might it become important to you?"

Response	n
Important after high school	4
When I'm in post-secondary school	3
In a year or two	2
No response	2
Later more options to learn about	2
End of university /college years	2
When I move out	1
When deciding on courses for university	1
Next year when I have enough money for school	1
When I turn 21	1
When I need a job	1
Not having to fill out forms	1
Total Number	21

Research Question 10b: If career planning is important to you, what would be most helpful to you in your career planning?

In this open-ended question the themes were coded and the frequency and percentage of each coded theme is presented. The need for post-secondary information (see Table 15) was reconfirmed by a majority of these students (n = 70; 27.6%). The most frequently requested type of information was information on post-secondary institutions, training, courses and admissions (n = 34). Financial information, scholarships, and student loans were also a priority (n = 26). In fact a number of the respondents expressed the need to talk individually with a post-secondary counsellor (n = 16).

The next greatest reported need was high school career information (n = 50, 19.70%). This career help included finding information based on career choice (n = 12), career resources information packages (n = 7), and research/knowledge on chosen career path (n = 6). Career investigation information was a need including "Finding a career I would succeed in" (n = 4), "Deciding what I want to do for career" (n = 4), "Options for careers out there" (n = 3), and "Help to narrow down my choices" (n = 3). Also evident was the request for career experience (n = 28, 11.0%) including talking to people in the field, and opportunities for workplace learning including job shadow, work experience or volunteer opportunities. Specific labour market information was an expressed need (n = 23; 9.09%); including job availability (n = 9), finding a job (n = 7) and job opportunities (n = 6). High school success was expressed (n = 15, 5.9%), including good marks (n = 6), and the support to finish high school (n = 6). Finally, is the strong need for individual career counselling reported by students (n = 14, 5.5%) who request this service in the

high school setting. A major segment of the students (n = 49; 19.5%) choose not to respond to the question or gave an inappropriate response.

Table 15

Responses to the question "If career planning is important to you, what would be most helpful to you in your career planning?"

Response	n	%
Post-secondary Information		
Information on post-secondary institutions/admissions/courses/training	34	
Finances/scholarships/loans	20	
Specialized post-secondary counsellor	16	
Total	70	27.6
High school Career Information		
Finding out information based on my career choice	12	
More career resources/information packages	7	
Research/Complete knowledge of the path I have chosen	6	
Finding out type of career I would succeed in	4	
Decide what I want to do	4	
Options/find out types of careers out there	3	
Help to narrow down choices	3	
Knowing all my options/education	3	
Useful Internet Sites for programs & searching	2	
Know my interests & what I would enjoy	2	
Making personal career plans	2	
Requirement to get into my career	1	
Learn about occupations	1	
Total	50	19.7
No/inappropriate response	49	19.5
Exposure to career/talking to people in my field of interest /job shadow/work/volunteer experience	28	11.0
Labour Market Information		
Job availability /know high demand jobs	9	
Finding a job	7	
Job opportunities	6	
Getting a job outside my community	1	
Total	23	9.0
High School		
Good marks in high school	6	
Support to finish school	6	
Good education/more experience	1	
Help with stress of school	1	
Motivation/time to explore my options	1	
Total	15	5.9
Individual career counselling/information	14	5.5
Support/help in career plans	4	1.5
Total Number	253	100%

Research question 11: Please rank the people you would feel most comfortable approaching for help with your career planning. Place a "1" beside the person you would be MOST comfortable approaching, a "2" behind the person you would be NEXT most likely to approach, and a "3" beside your third choice for help.

Rating scales ask the respondents to rate concepts on the basis of attributes. This result is reported through the use of descriptive statistics, including frequency count and percentage of the total sample. As noted there were 828 useable answers to this question.

The results presented in Table 16 are for the people ranked "1"or the person the grade 12 students are most comfortable in approaching for help in career planning. Family was ranked highest (n = 364; 43.9%), with most students comfortable in approaching parents for help. The next highest ranking was for school counsellors (n = 131; 15.8%). Notable was the high ranking of someone working in the field as a "people resource" to career plans (n = 112; 13.5%). Further types of family and community support ranked as helpful were friends (n = 68; 8.2%) and other relatives, (n = 41; 4.9%). Finally, these results can suggest that in high schools the "people resources" for career plans can be less accessible with only (n = 32; 3.8%) comfortable in approaching a classroom teacher and (n = 18; 2.2%) a CALM teacher.

Table 16

Results of the people ranked "1" as most comfortable to approach for help with career planning

Response	n	%
a) My classroom teacher	32	3.8
b) My CALM teacher	18	2.2
c) My school counsellor	131	15.8
d) My parent(s)	364	43.9
e) Other relatives	41	4.9
f) Friends	68	8.2
g) Someone working in the field	112	13.5
h) Other people I know and trust	32	3.9
i) No one	12	1.4
Total	810	96.70

Table 17 gives the ranking of "2" or the second choice for people the grade 12 students are comfortable in approaching for help in career. The results report that school counsellors were the highest "people resource" (n = 172; 20.7%), followed by parents (n = 158; 19%) and friends (n = 135; 16.3%). Additionally, someone working in the field was ranked highly by a significant number of the students (n = 106; 12.8%). Classroom teachers (n = 83; 9.9%) and Calm teachers (n = 25; 3.0%) received lower rankings.

Table 17

Results of the people ranked "2" as most comfortable to approach for help with career planning

Response	n	%
a) My classroom teacher	83	9.9
b) My CALM teacher	39	4.7
c) My school counsellor	172	20.7
d) My parent(s)	158	19.0
e) Other relatives	84	10.1
f) Friends	135	16.3
g) Someone working in the field	106	12.8
h) Other people I know and trust	50	6.0
i) No one	8	1.0
Total	821	97.7.0

The results of the "3" or third choice of the people students are most comfortable in approaching for help in career planning are presented in Table 18. They ranked highest for help, someone working in the field (n = 160; 19.3%), and then friends (n = 134; 16.1%). Similar rankings were given to all the high school "people resources" classroom teachers (n = 97; 11.6%), and school counsellors (n = 95; 11.4%); while the "family resources" were parents (n = 97; 11.7%) and other relatives (n = 94; 11.3%).

Table 18

Results of the people ranked "3" as most comfortable to approach for help with career planning

Response	n	%
a) My classroom teacher	97	11.6
b) My CALM teacher	39	4.7
c) My school counsellor	95	11.4
d) My parent(s)	97	11.7
e) Other relatives	94	11.3
f) Friends	134	16.1
g) Someone working in the field	160	19.3
h) Other people I know and trust	72	8.7
i) No one	19	2.3
Total	807	100.0

Part C: Career Help

The CCNS questionnaire yielded data on career development practices, tools, and types of career information, the people resources helpful to career, availability and usefulness of high school career educational services and resources, confidence in future education and career, and working in the home community.

Research Question 12: There are a number of things that people find useful for career planning. What would you find helpful at this time in your life?

Likert Rating Scales begin with an assertion and ask respondents to indicate the extent to which they agree or disagree. The responses to these questions are reported through the use of descriptive statistics, including frequency counts and percentages.

The results (see Table 19) suggest a very important need for this group of grade 12 students ("very helpful" n = 492; 56.1%) and ("quite helpful" n = 283; 32.3%), or 88.4% of the respondents is to find ways to pursue things about which they are passionate. As well, there is strong acknowledgement of the need for post-secondary

institution information ("very helpful" n = 407; 46.5%) and ("quite helpful" n = 262; 29.9%) or 76.4% of the respondents. Information about financial help to continue an education also receives a high ranking ("very helpful" n = 411; 47.5%) and ("quite helpful" n = 260; 30.0%) or 77.5% of the students. These results provide confirmation of the need for information and the strategies and relevant support to achieve education beyond high school for these respondents.

A majority specifies a readiness for specific career counselling services. These students express the need to understand interests and abilities ("very helpful" n = 433; 50.2%) and ("quite helpful" n = 297; 33.7%) or 83.9%. Students describe the need for information about the world of work ("quite helpful" n = 361; 41.2%) and ("very helpful" n = 269; 30.7%) or 71.9% of the sample. Help with planning the next steps of my career is a strong need for many students ("quite helpful" n = 333; 37.9%) and ("very helpful" n = 307; 36.5%) or 74.4%. Certainly the need for relational support is validated in the questions about support in career plans ("quite helpful" n = 332; 37.9%) and ("very helpful" n = 320; 36.5%) for 74.4% of the students.

Endorsement is also reported for help in choosing between occupations ("quite helpful" n = 292; 33.4%) and ("very helpful" n = 199; 22.8%) or 56.2% of the respondents. The students regard as helpful the notion of being convinced that career planning is important ("quite helpful" n = 243; 27.9%) and ("very helpful" n = 155; 17.8%) or 45.7%. Information about career opportunities within the community received a positive response ("quite helpful" n = 244; 28.0%) and ("very helpful" n = 160; which is the 18.4% of the respondents. In summary, all facets of career planning services receive strong affirmation by these grade 12 students.

Table 19

Frequency Results: High School Career Services and Resources Useful to Grade 12 Career Planning.

Response	Don't Know		Not at All Helpful		Somewhat Helpful		Quite Helpful		Very Helpful	
	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%
a) Convincing me it is important	119	13.7	126	14.5	228	26.2	243	27.9	155	17.8
b) Understanding my interests and abilities	12	1.4	30	3.4	100	11.3	297	33.7	443	50.2
c) Finding ways to pursue things I am passionate about	13	1.5	15	1.7	74	8.4	283	32.3	492	56.1
d) Information about the world of work	16	1.8	39	4.5	191	21.8	361	41.2	269	30.7
e) Information about different kinds of occupations	15	1.7	47	5.4	187	21.4	335	38.3	291	33.3
f) Information about opportunities within my community	41	4.7	159	18.3	266	30.6	244	28.0	160	18.4
g) Help with choosing between two or more occupational options	34	3.9	116	13.3	233	26.7	292	33.4	199	22.8
h) Information about post-secondary institutions	19	2.2	42	4.8	146	16.7	262	29.9	407	46.5
i) Help with planning the next steps in my career	24	2.7	37	4.2	177	20.2	333	37.9	307	35.0
j) Getting support for my career plan	13	1.5	36	4.1	176	20.1	332	37.9	320	36.5
k) Information about financial help for continuing my education	18	2.1	35	4.0	142	16.4	260	30.0	411	47.5
m) Other	141	42.7	26	7.9	37	11.2	53	16.1	73	22.1

The ranked-ordered mean scores and standard deviations for the 12 items helpful to student career planning are presented in Table 20. The mean score will provide an indicator of the relative importance of the responses for each item presented in this question. In addition, the standard deviation or the average variance between all scores and the mean, will be calculated for the responses to each item. The standard deviation

will provide a comparison measure when analyzing the variation of the data to the mean score for each item in the question.

The results indicate a high ranking or high importance of need as most items are rated "Very Helpful or "Quite Helpful" with mean scores between 2.58 and 3.40. The top two items reported by students pertain to self-understanding or pursuing things I am passionate about (3.40) and understanding my interests, and abilities (3.28). Information needs, including knowing about post-secondary finances (3.17) and post-secondary institutions (3.14) is the next category or priority of need. "People resources" follow which are the relational needs including getting support for my career plans (3.04) and help in planning the next steps in career (2.98). The last categories include primarily the informational needs of knowledge of different occupations (2.96) and the world of work (2.95) and help with choosing between two or more occupational options (2.58). Information about opportunities within the community (2.37) and being convinced of the importance career plans (2.22) were in the lowest category of needs.

Table 20

Rank-ordered Means and Standard Deviation Scores for the Information and Career Development Resources Helpful to Grade 12 Career Plans

Priority	Response	Mean	Std. Dev.
1	Finding ways to pursue things I am passionate about	3.40	.83
2	Understanding my interests and abilities	3.28	.89
3	Information about financial help for continuing my education	3.17	.98
4	Information about post-secondary institutions	3.14	1.0
5	Getting support for my career plan	3.04	.93
6	Help with planning the next steps in my career	2.98	.98
7	Information about different kinds of occupations	2.96	.96
8	Information about the world of work	2.95	.93
9	Help with choosing between two or more occupational options	2.58	1.1
10	Information about opportunities within my community	2.37	1.12
11	Convincing me it is important	2.22	1.28
12	Other	1.67	1.65

NOTE. 0 = Don't Know
1 = Not at All Helpful
2 = Somewhat Helpful
3 = Quite Helpful
4 = Very Helpful

Research Question 13: In the past, you have received help with your career planning from a number of people. Please circle how helpful each of the following people have been with your career planning so far:

Likert Rating Scales begin with an assertion and ask respondents to indicate the extent to which they agree or disagree. The responses to these questions are reported through the use of descriptive statistics, including frequency counts and percentages.

This question is a restatement of question 11 regarding the "people resources" who could be approached for career help. In fact, the results in Table 21 support the previous results in that community relationships provide the most help. The respondents viewed as helpful parents ("very helpful" n = 368; 42.3%) and ("quite helpful" n = 283; 32.6%) or 74,9%; someone in the field ("quite helpful" n = 243; 28.0 %) and ("very helpful" n = 218; 25.1 %) or 53.1%; friends ("quite helpful" n = 298; 34.1%) and ("very helpful" n = 135; 15.5%) or 49.6%; and other relatives ("quite helpful" n = 283; 32.6%) and ("very helpful" n = 145; 16.7%) or 49.3%. In contrast other community groups such as spiritual and religious groups (n = 333; 38.6%) and youth groups (n = 377; 43.8%) were rated as not being helpful to career.

These results suggest a more positive view of the educators' role in career support. Regarded as helpful by the students are school counsellors ("quite helpful" n = 259; 30.0%) and ("very helpful" n = 229; 26.5%) or 56.5%; classroom teachers ("quite helpful" n = 191; 23.5%) and ("very helpful" n = 66; 8.1%) or 31.6%; and CALM teachers ("quite helpful" n = 197; 22.8%, and ("very helpful" n = 73; 8.5%) or 31.3%. It can be suggested that these results validate the potential for a career planning focus in students and staff relationships.

Table 21

Frequency Results: People Resources Useful to Grade 12 Career Planning

Response	Don't Know		Not at All Helpful		Somewhat Helpful		Quite Helpful		Very Helpful	
	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%
a) My classroom teacher	69	8.5	160	19.7	327	40.2	191	23.5	66	8.1
b) My CALM teacher	103	11.9	227	26.3	263	30.5	197	22.8	73	8.5
c) My school counsellor	80	9.3	143	16.6	153	17.7	259	30.0	229	26.5
d) My parents	21	2.4	52	6.0	145	16.7	283	32.6	368	42.3
e) Other relatives	58	6.7	137	15.8	245	28.2	283	32.6	145	16.7
f) Friends	42	4.8	113	12.9	285	32.6	298	34.1	135	15.5
g) Someone working in the field	111	12.8	123	14.2	174	20.0	243	28.0	218	25.1
h) Spiritual or religious group	228	26.5	333	38.6	143	16.6	99	11.5	59	6.8
i) Youth group or associations (non-religious)	248	28.8	377	43.8	133	15.5	83	9.7	19	2.2
j) Other	185	53.3	63	18.2	30	8.6	23	6.6	46	13.3

Table 22 presents the rank ordered mean scores and standard deviations for the "people resources" or the people from whom these grade 12 students have received help with career planning. The mean score provide an indicator of the relative importance of the responses for each item presented in these questions. In addition, the standard deviation or the average variance between all scores and the mean is calculated. The standard deviation provides a comparison measure when analyzing the variation of the data to the mean score for each item in the question.

Rated highly or "Quite Helpful" are parents (3.06), while school counsellors are ranked second (2.48) or "Somewhat Helpful." Friends ranked third (2.42), someone

working in the field (2.38) fourth, and relatives fifth (2.37). Classroom teachers are ranked sixth (2.03) and CALM teachers seventh (1.90) in priority. Spiritual or religious groups (1.34) received a low ranking and youth groups (1.13) are the least helpful in career plans.

Table 22
Rank-ordered Means and Standard Deviation Scores for the People Resources Helpful for Grade 12 Career Planning

Priority	Response	Mean	Std. Dev.
1	My parents	3.06	1.02
2	My school counsellor	2.48	1.29
3	Friends	2.42	1.05
4	Someone working in the field	2.38	1.34
5	Other relatives	2.37	1.13
6	My classroom teacher	2.03	1.05
7	My CALM teacher	1.90	1.14
8	Spiritual or religious group	1.34	1.18
9	Youth group or associations (non-religious)	1.13	1.01
10	Other	1.08	1.44

NOTE.
0 = Don't Know
1 = Not at All Helpful
2 = Somewhat Helpful
3 = Quite Helpful
4 = Very Helpful

Research Question 14: Please rate how helpful the following services or resources have been with your career planning.

Likert Rating Scales begin with an assertion and ask respondents to indicate the extent to which they agree or disagree. The responses to these questions are reported through the use of descriptive statistics, which are frequency counts and percentages. The data in Table 23 reports the availability of career services and resources with confirmation of "Yes Available" for career counselling (77.2%), CALM course (81.1%), work experience (81.8%), written materials (76.8%), CTS courses (71.9%), Internet sites (71.7%), and computer programs (67%). Career information centers (56.5%), career fairs (52.1%), career-planning workshops (39.4%), videos (39%), interest inventories (34.5%), job shadowing (32.6%, and CD –ROMS (31.8%) were regarded as "Less Available".

In response to the question "Did you use it?" students responded "Yes" for the CALM course (82.7%), written material (65.6%), career counselling (62.5%), CTS course (64.3%), Internet sites (57.6%), computer programs (55.6%), and work experience (53.1%). The school career information centers received a lower rating (43.6%).

In reponse to the questions "How helpful or useful was it?" career counselling was rated highest ("quite helpful" 24.6%; "very helpful" 15.8%) or 40.4%. The students would view many of the curriculum resources and the formal instruction in career topics as having some utility as the ratings were: written materials ("quite helpful" 22.2%; "very helpful" 10.6%) or 32.8%, Internet sites ("quite helpful" 21.3%;"very helpful" 15.2%) or 36.5%; CALM course ("quite helpful" 21.9%; "very helpful" 9.7%) or 31.6%, computer programs ("quite helpful" 17.4%; "very helpful" 9.5%) or 26.9%; and career fairs ("quite helpful" 13.2%;"very helpful" 9.8%) or 23%.

Finally the data on accessibility and utilization of the community career resources confirm a limited access by grade 12 students. The data confirm the following results for the community career library ("don't know if available" 47.4%; "not available" 16.2%; "no did not use it" 78.5 %). As well, 77.2 % did not access the regional library for career resources and 82.5% did not access community agencies for career help. Clearly students must access and receive career services in the high school setting.

Table 23

Frequency Results: Grade 12 Career Services and Resources Helpful to Career Planning

Services or Resources	Was This Available						Did You Use It?						How Helpful or Useful Was It?							
	Don't Know		Not Available		Yes Available		No		Yes		Don't Know		Not at All		Some What		Quite		Very	
	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%
a) Career Counselling	122	15.2	61	7.6	619	77.2	294	37.5	491	62.5	239	29.1	99	12.1	151	18.4	202	24.6	130	15.8
b) School career information center	222	27.4	130	16.1	457	56.5	410	56.4	317	43.6	322	43.4	110	14.8	131	17.7	109	14.7	70	9.4
c) Career library outside school	389	47.4	133	16.2	299	36.4	583	78.5	160	21.5	459	62.4	119	16.2	56	7.6	59	8.0	43	5.8
d) Local/regional library	273	33	76	9.2	479	57.9	590	77.2	174	22.8	457	61.1	131	17.5	70	9.4	60	8.0	30	4.0
e) Community agencies	408	49.8	119	14.5	293	35.7	603	82.5	128	17.5	458	64.3	118	16.6	59	8.3	44	6.2	33	4.6
f) CALM course	100	12.1	57	6.9	672	81.1	133	17.3	637	82.7	102	12.3	209	25.3	254	30.8	181	21.9	80	9.7
g) CTS course	153	19.1	73	9.1	577	71.9	264	35.7	476	64.3	210	27	171	22	159	20.5	148	19	89	11.5
h) Written materials	131	16.1	58	7.1	625	76.8	257	34.4	490	65.6	204	26.1	119	15.2	203	25.9	174	22.2	83	10.6
I) Work experience	93	11.4	56	6.9	668	81.8	360	46.9	407	53.1	280	36.3	100	13	94	12.2	131	17	167	38.6
J) Computer programs	195	24.3	70	8.7	538	67	322	44.4	403	55.6	258	34	148	19.5	148	19.5	132	17.4	72	9.5
k) Interest inventories	397	49.1	133	16.4	279	34.5	476	66.7	238	33.3	389	55.3	103	14.6	93	13.2	78	11.1	41	5.8
l) Career planning workshops	360	43.7	139	16.9	324	39.4	498	67.4	241	32.6	402	55.5	97	13.4	101	14	82	11.3	42	5.8

m) Career fairs	273	33.4	119	14.5	426	52.1	419	55.5	336	44.5	329	44.3	101	13.6	141	19	98	13.2	73	9.8
n) Internet sites	180	21.6	56	6.7	599	71.7	322	42.4	437	57.6	244	31.4	117	15	133	17.1	166	21.3	118	15.2
o) Videos	361	44.7	132	16.3	315	39	518	71.3	209	28.7	424	58.9	112	15.6	86	11.9	61	8.5	37	5.1
p) CD-ROMS	418	51	141	17.2	261	31.8	551	76.6	168	23.4	456	65	100	14.3	61	8.7	50	7.1	34	4.9
q) Job shadowing	400	48.8	152	18.6	267	32.6	528	72.7	198	27.3	433	62.4	89	12.8	56	8.1	56	8.1	60	8.6
r) Other	236	74.4	28	8.8	53	16.7	221	84	42	16	192	70.8	26	9.6	15	5.5	10	3.7	28	10.3

Table 24 presents the mean rankings of the student rating of 18 school services and resources. The mean scores provide an indicator of the relative importance of the responses for each item presented in these questions. In addition, the standard deviation or the average variance between all scores and the mean are calculated. The standard deviations provide a comparison measure when analyzing the variation of the data to the mean score for each item in the question.

The mean scores for all items are very low or in the category of only "Somewhat Helpful" to career planning. The students gave the highest ranking to the curricular resource or the CALM course (1.91), followed by career counselling (1.86), written materials (1.76), work experience (1.75), and Internet sites (1.74). These results also suggest CTS course (1.66), school career information centers (1.32) career fairs (1.31) are lower in ranking at 6th, 8th and 9th in helpfulness. The community resources which received the lowest ranking are 13th job shadowing (.88), 14th career library (.79) and 15th the local library (.76).

Table 24

Rank-ordered Means and Standard Deviation Scores of Grade 12 Career Services and Resources Helpful to Career Planning

Priority	Response	Mean	Std. Dev.
1	CALM course	1.91	1.16
2	Career Counselling	1.86	1.47
3	Written materials	1.76	1.34
4	Work experience	1.75	1.60
5	Internet sites	1.74	1.47
6	CTS course	1.66	1.35
7	Computer programs	1.49	1.36
8	School career information center	1.32	1.40
9	Career fairs	1.31	1.40
10	Interest inventories	.98	1.29
10	Career planning workshops	.98	1.29
12	Job shadowing	.88	1.34
13	Videos	.85	1.22
14	Career library outside school	.79	1.23
15	Local/regional library	.76	1.15
16	Other	.73	1.33
17	CD-ROMS	.72	1.18
18	Community agencies	.70	1.14

Research Question 15: When you think about the next few years of your life, how confident are you about the following:

Likert Rating Scales begin with an assertion and ask respondents to indicate the extent to which they agree or disagree. The responses to these questions are reported through the use of descriptive statistics, which are frequency counts and percentages. The results in Table 25 suggest that these students are confident in the future, confident they will find the occupation they love to do ("quite likely" 40.7%; "very likely" 27.8%), in getting the education and training they need ("quite likely" 40.8%, "very likely" 38.8%), and in working in the occupation they have chosen ("quite likely" 43.3%, "very likely" 30.8%). This appears to be a motivated group of grade 12 students, who have a positive

sense of career. They plan to take the education and training to pursue a chosen career and perceive their training and career aspiration as attainable.

Table 25
Frequency Results: Confidence In the Next Few Years of Your Life,

Response	Not at All Likely		Not very Likely		Somewhat Likely		Quite Likely		Very Likely	
	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%
a) Find an occupation that I love	20	2.5	32	4.0	202	25.1	328	40.7	224	27.8
b) Get the education/training I need	9	1.0	19	2.2	147	17.1	351	40.8	334	38.8
c) Find work in chosen occupation	7	0.8	30	3.5	185	21.5	372	43.3	265	30.8

The mean scores in Table 26 provide an indicator of the relative importance of the responses for each item presented in these questions. The standard deviation or the average variance between all scores and the mean is calculated for the responses to each item in this question. In the rankings of mean scores for confidence in next few years of life are all ranked highly or viewed as "Quite Likely " or "Very Likely." The 1st priority need is getting education or training (3.14), followed by finding work in a chosen occupation (3.00), and lastly finding an occupation "I love" (2.87).

Table 26

Rank-ordered Means and Standard Deviation Scores of Grade 12 Confidence In Next Few Years of Life

Priority	Response	Mean	Std. Dev.
1	Get the education/training I need	3.14	.85
2	Find work in chosen occupation	3.00	.86
3	Find an occupation that I love	2.87	.95

NOTE.
0 = Not at All Likely
1= Not Very Likely
2 = Somewhat Likely
3= Quite Likely
4= Very Likely

Research Question 16: If you find work in your chosen occupation, it will be: d) In my home community; e) In my province; f) In my country; g) Internationally.

Likert Rating Scales begin with an assertion and ask respondents to indicate the extent to which they agree or disagree. The responses to these questions are reported through the use of descriptive statistics, which are frequency counts and percentages.

The results in Table 27 confirm the results of research question # 5 in that this group of students does not aspire to work in the home community ("not likely" 24.1%; "not very likely" 20.7%; "somewhat likely" 28.9%). Rather these students express interest in working in the province ("quite likely" 29.1%; "very likely" 31.3%) and the possibility working internationally ("very likely" 31.8%; "quite likely" 15.0%). With the figure of 60.4% reporting goals of working within the province, this is affirming of the provincial public policy on human capital development and post-secondary credentials. A

further observation is that these grade 12 students have a national and global perspective on the career and labour market.

Table 27

Frequency Results: Work Location for Chosen Occupation

Response	Not at All Likely		Not very Likely		Somewhat Likely		Quite Likely		Very Likely	
	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%
d) In my community	197	24.1	169	20.7	236	28.9	110	13.4	106	13.0
e) In my province	63	7.7	62	7.6	198	24.3	237	29.1	255	31.3
f) In my country	22	2.7	15	1.8	138	16.9	194	23.8	446	54.7
g) Internationally	137	16.9	153	18.9	141	17.4	121	15.0	257	31.8

The mean score provide an indicator of the relative importance of the responses for each item presented in the question. The standard deviation or the average variance between all scores and the mean is calculated. Table 28 provides the mean rankings of work location with most scores indicating "Very Likely" or "Quite Likely." The students indicate their 1st choice as working within my country, (3.26), 2nd choice as working within the province (2.69) or the 3rd ranking was working internationally (2.26). The interest in working in home community received the lowest ranking or "Not Very Likely" with the low score of (1.71).

Table 28

Rank-ordered Means and Standard Deviation Scores of Grade 12 Work Locations

Priority	Response	Mean	Std. Dev.
1	In my country	3.26	.98
2	In my province	2.69	1.21
3	Internationally	2.26	1.49
4	In my community	1.71	1.32

NOTE.
0 = Not at All Likely
1= Not Very Likely
2 = Somewhat Likely
3= Quite Likely
4= Very Likely

Conclusion

This chapter presented the results of this investigation. The results of this study suggest grade 12 students who value career plans and the resources, both people and informational to support transition to post-secondary or work. The students voice the need to have passion for career, and report a wide range of occupational choices. The large majority plan post-secondary education or training and expressed the need for specific career development services to support success in career plans. High school career development resources are available but the efficacy data suggests their under utilization or reports of not being fully helpful to career plans. An important finding is that career resources are used in the school setting but not the community. Chapter V presents a discussion of the implications of the findings that have been described in Chapter IV. The strengths and weaknesses of this study and recommendations for future research will be outlined.

CHAPTER V

Discussion

The goal of this research study was to document the career education needs of grade 12 students. The research instrument was the CCNS, a 19-item needs assessment questionnaire, with both quantitative and qualitative questions. The findings of the study report on the availability of resources to support a growing sense of student career identity and the measure of student confidence in future career plans. In initiatives to describe the "demand side" of high school career services, Bezanson & Hiebert (2000) suggest key contributions can be made to career development practice. The survey results provide a snapshot of the process, relationships, programs, resources, and services for the transition needs of these grade 12 students. This chapter will discuss the results of this investigation. The chapter is structured to follow the sequence of topics in the Chapter II literature review. Part one examines adolescent context including adolescent development, adolescent identity achievement, and the school to work transition. Part two addresses career development public policy and provides a discussion of high school career development programs and services. The limitations of the study and recommendations for future research will be presented as well.

Adolescent Career Development Conclusions

This research is respectful of the paradigm shift described by several authors (Benson, 1997; Hamburg, 1997; Takanishi, 1993) who propose the conceptualization of adolescent needs, occurring as a collaborative project between the professionals who work with adolescents and the researchers who studies the needs of those adolescents. The CCNS was a shared project between the Southern Alberta Center of Excellence for

Career Development, the University of Lethbridge, Faculty of Education, the Chinook Regional Career Transitions for Youth project and The Southwestern Rural Youth Career Development project.

The developmental needs framework is confirmed by the results of this CCNS research, as the majority of the subjects express the desire to be convinced career planning is important in their life stage, and confirm the need for resources and people support in career plans. This study also corroborates research results (Collins, 1998; Gordon, Couture, & Drefs, 2000), which report that students give high ratings to the need for career and life planning educational programs.

As well, the results portray that adolescence, for most of the respondents, is not a time of rebellion. This is a confirmation of the research of Couture (2000). This is a group of grade 12 students who clearly know and indicate which resources would best facilitate the success of their career plans. They provide a provocative articulation of this transition experience in the open-ended questions or qualitative results of this research.

This study, with a focus on the assessment of adolescent career needs, also affirms or provides a confirmation of the position that all adolescents must experience secure relationships which provide support and caring to facilitate an optimum developmental sequence (Benson, 1997). In Table 16, when students ranked the individuals who they were most comfortable to approach for help in career planning, 1 st place was parents, but the next highest ranking was for school counsellors, followed by someone working in the career field. The results in Table 21 are a restatement of this question, and in this instance affirm the educator's role in career support. Regarded as "quite or very helpful" by the students were school counsellors (56.5%), classroom

teachers (31.6%), and CALM teachers (31.3%). This is an asset building vision of school culture (Hamburg, 1997) or the notion of supportive community context that guides adolescents toward a meaningful adulthood. There is a confirmation of the requirements for the developmentally proactive adolescent social context (Benson, 1997; Santrock, 1996). The high school educators, who are the classroom teachers, CALM teachers, counsellors, and administrators, can play an increasingly key role in support of high school career planning.

The personal narrative or dialogue with supportive career professionals is a priority. This is a confirmation of the notion of constructivist career or the narrative of career meaning informing all career decisions (Peavy, 1996). Table 19 confirms the respondents' readiness for career counselling services in the results of "quite or very helpful" for 83.5% who express the need to understand interests and abilities, 72.9 % who request help for planning the next steps of career, and 74.4% who regard support for career as helpful. In Table 15, the results confirm the need for specialized post-secondary counselling or individual career counselling. Table 16 shows that counsellors are ranked number two as the most comfortable to approach for help in career plans by 15.8% of the students. The professionals in schools can listen to career aspirations and offer the affirmations and connections to community resources. It is possible to observe that the student narrative of career journey or the quest for meaningful exploration and self-expression with significant adults can provide the reflective process for adaptive career transitions (Savickas, 1997).

Adolescent Identity Achievement Conclusions

We can be optimistic in the examination of the results of this study, with respect to viewing adolescent identity formation as the bridging developmental task between

childhood and adulthood (Erikson, 1968). Themes in the results on reasons for career choice (see Table 10) suggest an evolving self-knowledge and attention to interests (24.9%), working style (21.7%), job requirements and labour markets (20.1%), awareness of skills and talents (12.6%) and connection of career to personal passions (11.0%). The students' responses evidence valuable self-direction and also suggest they are active in self and career identity tasks (Peavy, 1996; Watts, 2000).

Career development practice attends to the interconnections between person and environment (Savickas, 2000). The results of this study imply a group of students who regard post-secondary programs and future career prospects as both accessible and attainable. Most certainly, the tasks of exploration of career possibilities, access to career education programs and confidence in future participation in the labour market are evident (see Table 25). They exhibit the critical adaptability characteristic, in the quest to construct personal meaning in their lives. This evidence of self-motivation toward career can certainly provide the impetus they require to complete high school. Generally these adolescents evidence a level of identity attainment that can function as an important compass in future life and career decisions.

Several cautionary observations and concerns can be directed to the results that confirm the need for more active student participation in career experiences, including job shadowing, work experience, and volunteering. The students express the need to talk to individuals in their career of interest (see Table 21). We can ask if this implies an inadequate level of exploration of career possibilities, which could result in unrealistic understandings of occupational roles and work environments? If the task of career development practice is the achievement of "satisfactory workers" which is the human

capital potential of a skilled workforce, "real life experiences" in the workplace must be an identified priority for high school students (Savickas, 2000).

What are the implications associated with results that suggest that students are not always comfortable in approaching high school staff for help with career planning? Comprehensive career initiatives suggest the cross-sector collaboration with all stakeholders including schools, business, post-secondary, and community partners (Charner et al., 1995). Adolescent career needs can be part of a high school relational environment that fosters notions of adolescent mattering, or the human need for emotional and informational connection. This is the relational support that promotes the healthy development of all adolescents (Adams & Marshall, 1996; Benson, 1997; Blustein, et al., 1995). Support for career goals and dreams, by significant adults, certainly propels the environmental exploration that is part of career adaptability. Must educators attach new importance to their professional roles of caring about the career plans of their students?

The School-to-Work Transition Implications

In response to the recommendations of previous researchers (Blustein et al., 1997; Watts, 1996; Worthington & Juntunen, 1997) it becomes a priority to identify the participant outcomes in STW programs. Certainly the vast majority of these students indicate that career planning is important, with only 25.3% viewing it as slightly or not important (see Table 13). The high mean scores of information and career development resources (see Table 20) confirm significant student need for all facets of the career planning process including: to find ways to pursue passions, to understand interests and abilities, to obtain financial and other types of post-secondary information, to have help and support with the next steps, and to obtain specific information about occupations and

world of work. Clearly, they indicate the awareness and commitment to access the vast range of career development services.

In comparison to the research results for 1000 high school seniors (Lowe, Krahn & Bowlby, 1997), this study (see Table 7) found that 49.1% of the students plan full time and 15.6% plan part-time studies at university, college, or technical institute and 8.4% plan other types of training. Therefore 73.1% of this sample plan post-secondary education versus a total of the 63% in the previous study. This trend represents an increase in post-secondary participation rates. In fact, these research findings confirm that the majority of these grade 12 students are seeking the level of education they believe is needed to get a good job. These results validate public policy which informs students of the importance of acquiring the knowledge, values, and skills, for life in the twenty–first century (Alberta Human Resources and Employment & Alberta Learning, 1999; Butlin, 1999; Hackett & Baran, 1995; Human Resources Development Canada, 1998).

It is also possible to observe, with the diverse range of occupational choices indicated by the respondents (see Table 9), and the hopefulness of these students, that opportunity for career attainment is seen as accessible by most, or a diverse range of students. This is indicative of career development practices that foster a sense of inclusion. This research counters the position of Levin (1995) who suggests that many high school students do not know what they want to do with their lives. The high mean scores for this group "Quite Likely or Very Likely" (see Table 26), suggest that they are very confident in getting the needed education and training, finding work in chosen occupation, and finding an occupation they love.

Another factor that can influence career choices is media reports of a buoyant labour market (Paa & McWhirter, 2000). It is also important to acknowledge the initiatives by a number of post-secondary institutions to widely publish employability and earnings statistics. These factors may produce a worldview of a future that is attainable and achievable.

Lowe, Krahn, & Bowlby (1997) recommended that new research identify key supports and barriers to high school students educational and career goals. This study addressed this research priority, obtaining results on what was most encouraging for grade 12 student career plans (see Table11). The top factors of encouragement included making money to support wants and needs (27.1%), importance of work success and satisfaction (21.0%), enjoying the work (10.8%), future sense or life role (9%), and personal strength awareness (6.8%). This group is also committed to helping, teaching and changing lives (6.5%) and learning and personal development (5.4%). Also informative are the results on the seven main themes of "expressed discouragement in career plans" (see Table 12). These included concerns about the nature of working conditions (23.9%), the challenging requirements of post-secondary education which caused apprehension for 23.5% of the group, personal factors of success in career (21.1%), salary and lack of high paying jobs (6.2%), work schedules (5.4%), career opportunities, and job security (4.7%).

In summary, the results suggest that the respondents expect career success and enriching work environments. These themes profile a group who desires to be in control of career and is very much concerned about career satisfaction. These are significant descriptors of career needs for future employers to contemplate. It is important, as well to

understand the very real angst expressed by the respondents concerning the transition to post-secondary programs. This research infers a recommendation, that post-secondary programs must continue to be attentive in the provision of information on admissions, courses, finances, scholarships and provide specialized transition counselling for their prospective students (Arthur & Hiebert, 1996). This expressed need for institutional support should be a priority and could result in measurable improved success in course selection, motivation, and course completion. The results of this study, in documenting the individual voices or the experiences of youth, direct us to listen (Collins, 1998). This is a confirmation that professionals be compelled to craft career public policy with obvious attention to the needs and priorities of the adolescent clientele (Blustein et al., 1997a).

These results notwithstanding, the students signify ambivalence about the helpfulness of current school services to help them achieve personal dreams and aspirations. Previous STW research links the resilience of adaptive transitions to the prominence of relationships that offer support (Blustein et al., 1997a). It can be observed that trusting and knowing people could be critical factors for students seeking career support. The more limited results for school staff could imply that more relational effort, and the elevation of career communication opportunities or support relationships, could become more of a priority for a school career culture.

Finally, the public policy of STW suggests attention be focused on improving access to post-secondary opportunities and the implication is that career counselling provides critical narrative and social support (Worthington & Juntunen, 1997). This CCNS research data affirms that 72.5% of the students regard help with career planning

as "quite or very helpful" (see Table 19). These results imply that both information resources and the psychological support of career counselling are required in support of high school career needs. In particular the respondents (27.6%) view post-secondary information and counselling as being very helpful (see Table15) as well as access to high school career information (19.7%), and individual career counselling (5.5%).

Career Development Public Policy Conclusions

Career development public policy provides a framework for action on educational achievements of Canadian youth (Team Canada, 2000). The results of this study provide a strong affirmation of high school graduates who possess a future orientation and who clearly articulate their needs for the assured or confident pursuit of career goals. The results from the CCNS, in a positive sense, document post-secondary aspirations for 73.1% of the participants (see Table 7). The majority of these students has a plan or is deciding between two plans. Importantly, 74.7% of the students view career planning as "very or quite important" and are receptive to career information (see Table 13).

In response to a question on type of work, assuming proper education or training, the students provided numerous and diverse career goals (see Table 9). Most positive is the quality of the responses to the question, and the fact that all sectors of the National Classification Index (Employment & Immigration Canada, 1993) are represented. The general conclusion is that this research validates the broad career choice directions of the previous research (Lowe, Krahn, & Bowlby, 1997; Powlette & Young, 1996). Of special consequence were the increased number, or 9.3% of the students choosing skilled trades, versus the 7% and 3.8% in the previous studies. The increased level of interest may reflect curriculum initiatives to promote this career path

An important new finding (see Table 23) is that these grade 12 students are accessing career resources in their schools, but not in the community settings. Therefore this examination of the public policy of high school career education has yielded results that confirm the essential need of the high school or educational setting to impact the greatest number of students.

In response to the research question, "What does the term career mean to you?" (see Table 5) the key themes are "long term or practice for entire life" (21.7%), "a stable job" (17.7%), "further education and specialized training" (13.7%), "series of roles and jobs" (10.2%) and "choosing a role or job" (8.8%). It can be also be said the notions of the "active individual" (Watts, 2000) is affirmed in this study, as the students are in the most part successfully engaged in the process of their career.

Still needed is attention to the minority, or the 26.8% of students, who will work full time and do not plan post-secondary education (see Table 7). These results confirm the research of Butlin (1999) who found that close to 30% of high school graduates from the Prairie Provinces did not participate in post-secondary education. The public policy of high school career development is viewed as succeeding when it links students to the future education and training they need and provides the measurable outcomes of human capital and economic efficiency (Bezanson & Hiebert, 2000). The public policy of career development must therefore continue to give priority attention to high school outcomes. This is the STW objective of high school graduation, and student access and completion of post-secondary education or training, is the foundation for economic prosperity (Human Resources Development Canada, 1998; Human Resources Development Canada, 2000).

Career Development Programs and Services Conclusions

The results of this study indicate that these grade 12 students voice considerable need for career education since 74.7% regard career planning as "quite or very important" (see Table 13). When considering the efficacy of career services (Dedmond, 1996; Schultz, 1995) the results of the CCNS provide succinct client feedback on utilization of services. The present study has documented a number of specific areas of success and areas needing improvement, in the delivery of high school career programs.

Table 24 provides mean rankings of student ratings of 18 school services and resources. Mean scores for all items are low or in the category of only "Somewhat Helpful" to career planning. The students gave the highest ranking to the Career and Life Management (CALM) course (1.91), followed by career counselling (1.86), written materials (1.76), work experience (1.75), and Internet sites (1.74). These results also indicate that the CTS course (1.66), school career information centers (1.32) and career fairs (1.31) are lower in ranking at 6th, 8th and 9th in helpfulness. The community resources that received the lowest ranking are, 12th place job shadowing (.88), 14th career library outside school (.79) and 15th the local library (.76).

In fact, the data on student access and use of services (see Table 23) shows that 77.2% of the students confirm the availability of career counselling services and resources and 62.5% of students report using the services thereby suggesting the curriculum mandates have been implemented (Alberta Learning, 2000; Alberta Learning, 2001). The results are somewhat inconclusive in the availability and use of a career information center, as over half of the students (56.5%) confirmed it was available but only 43.6% of the students used the center.

The results for Career and Life Management (CALM) curriculum were somewhat positive, with 82.7% reporting "yes", they used the course; CALM also received the highest mean ranking (1.91) or "somewhat helpful" in ratings of school career services see (Table 24). The students reported the "career" section in CALM curriculum (31.6%), and the Career and Technology Studies (30.5%) courses, as being "quite or very helpful", in comparison to written career materials, which received a rating of 32.8% helpful (see Table 23).

In a question pertaining to work place learning, (see Table 23) the students generally confirmed the availability of work experience, but only 53.1% of the students used the program, while job shadow was generally not used (27.3%). This result is despite the fact that the students ranked work experience 4th in mean rankings (1.75) of helpful career services (see Table 24). In other ratings of helpfulness, (see Table 23) the results were computer programs (55.6%), career fairs (44.5%), interest inventories (33.3%), and career planning workshops (32.6%). Finally, the students reported availability but more limited use of Internet sites (57.6%). These students are not using in an important tool, the Alberta Learning Information Services (www.alis.gov.ab.ca) site. Do the vast resources of these career development Internet sites require a more effective marketing campaign to promote availability to grade 12 students?

This study confirms facets of the earlier research on career education (Powlette &Young, 1996) which found, in measurements across nine categories of "significant others" who provided help in career planning, that parents were the primary support, followed by friends and relatives. Most certainly, parents could be well informed of the availability of career development resources, and the data in this research confirms the

high priority of parents in their support of student career plans. The CCNS research results, however, provide important new findings for professional staff in schools. The previous study indicated that only 5% of students relied on teachers or counsellors as a "significant others" for influence in career plans or selection. In this study, students viewed the school relationships as "quite or very helpful" to making career plans specifically, counsellors (56.5%), classroom teachers (31.6%), and CALM teachers (31.3%) (see Table 21).

In the results reported in Table 15 on what would be most helpful in career planning, high school career information was the second major theme (19.7%). The students identified the need for information on career choice, career resource information packages, research on chosen career path, and interest in psychologically based career services, such as understanding interests, knowing options, help with planning the next steps, and occupational information. Additionally, the results show (see Table 23) that the vast majority of students "did not use" community career agencies (82.5%) or regional libraries (77.2%) outside the school. This is confirmation that students must access and receive career services in the high school setting and efforts must be ongoing to improve the efficacy and delivery of high school career education programs.

Limitations of the Study

The research was conducted in a rural area, in the province of Alberta, in centers with populations of 500-75,000 people. Although these results are valid, based on the large number of subjects, it can be stated that these results may not be generalized to grade 12 students beyond Southern Alberta. The results may also not be valid in other areas of Alberta and North America.

Notwithstanding, career education is a provincial initiative; therefore, these results may be said to confirm the value of the recently implemented high school career curricular programs. Post-secondary programs are located in all areas of the province of Alberta, and students might be said to have comparable access. Questions were not asked about distance education delivery of these post-secondary programs, which could be an important possibility in terms of access for these students.

The time of year for the administration of this study, which in this instance was May, could be a possible influence on the results. This is due to the fact that by May grade 12 students might be clearer about their career plans, than they would be in September. Consequently this study only provides a "snapshot" of the grade 12 students' career plans.

The CCNS is a broad survey instrument and was given to thousands of subjects. This study is based on student self-reports and therefore the results reflect the respondents' perceptions of reality at that moment in time. The data collected in this survey method does not allow for personalization or reflection on individual questions. Certainly future research with a smaller number of subjects, as well as an in depth interview format, would allow respondents to expand on their answers, and could permit a study with more detailed and specific results.

It can be observed that questions on the use and helpfulness of career portfolios were not presented in the CCNS questionnaire. This is despite the success of some school jurisdictions with this learning tool (Hutchinson, 1996; Stemmer, Brown, & Smith, 1992; Studd, 1997).

Recommendations for Future Research

Research must continue on the delivery or efficacy of recent career education initiatives in high schools. Certainly this CCNS instrument could be utilized in major urban centers and the results contrasted to the more rural population of this sample. The results of grade 12 career program needs may in future studies be compared to the results of the larger CCNS study, which are the career education needs of administrators, teachers, and parents.

The transition anxieties exhibited by students regarding programs and course selection in post-secondary programs must receive additional research attention. It is imperative to understand and maximize the student "strategies and repertoires" for success in learning beyond high school. Research attention should continue on the labour market participation rates of post-secondary graduates and their career success following graduation. Previous research has proposed the importance of support, or the narrative of career, in propelling important developmental progress and achieving career identity. It therefore seems important to design high school student research, which examines the impact of relational support, on decisions related to academic success and career.

This research has been valuable in profiling many very specific values and goals for these students, regarding career choice upon post-secondary graduation with appropriate training. This could be the focus of continued research. Certainly human resource practitioners can be attentive to the measurement of expressed priorities and the value systems of future workforce participants.

Important attention must be given to the 10% of the students in this study who were non-responsive to questions on career plans. In addition, the efforts of career development policy must be directed to the 25% of the students who do not complete

high school. The focus of the needs assessment methodology could be directed to this group who is "at risk" in the transition to labour markets. Human Resources Development Canada (2000) and Human Resources Development Canada (1998) report on the 32% of youth aged 22 to 24 who either did not complete high school or did not pursue further education or training. Many of them went to work. This study suggests a continuing STW transition research priority.

A recent report entitled Removing Barriers to High School Completion, released by Alberta Learning, stated that 27 % of students or 9000 students annually leave high school before earning a diploma (Derworiz, 2002). The goals of the Alberta Youth Employment Strategy (AYES) must continue to be addressed by all stakeholders in their efforts to improve high school completion rates and successful STW transition for all students.

Finally, given the expressed importance of work experience or "workplace learning" by these subjects, it seems important to conduct research on the students who have participated in these programs. It can be exemplary STW practice to examine "pre and post" work experience impressions, mentorship, achievement, and perceived personal career gains.

Conclusion

The results of this needs assessment have been most comprehensive and have yielded new insight into the career experiences of a group of grade 12 students. Career education programs can be deemed to engender an orientation to transition tasks beyond high school. The majority of the students appear to exhibit a proactive stance to personal career planning and are engaging in objective planning for participation in post-secondary institutions. The specific recommendation on delivery and utilization of high

school career education can be examined and based on this student feedback, and adjustments can be made to program goals.

The importance of access to post-secondary career counselling has been affirmed. In particular these students express the need for social support, help with academic decisions, access to campus resources or "responsive campus support programs"(Arthur & Hiebert, 1996). The results of this study raise concerns about the adequacy of student repertoire of coping skills and certainly these students voice the need for help. Financial concerns rank highly and these students request information regarding options.

A majority of the respondents in this Alberta study expressed the need to find enjoyment in their work and to excel in their chosen career. The research affirms the importance of the collaboration between all stakeholders in the STW transition. Importantly, listening to the voices of the students or the consumers of career development services represents pragmatism in the delivery of exemplary programs. Students should be active participants in influencing public policy on career development.

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Appendix A

Comprehensive Career Needs Survey
High School Form

Part A. General Information

Please fill in the following information about you, your school and the community your school is in.

1) What grade are you in? _____

2) How old are you? _____

3) How many students are in you school?
   a) 100 or less _____
   b) More than 100 but less than 500 _____
   c) More than 500 but less than 1000 _____
   d) More than 1000_____

4) What is the population of the town or city that your school is in?
   a) less than 1000 ____
   b) More than 1000 but less than 10,000 _____
   c) 10,000 or more _____

5) What does the term "occupation" mean to you?

_____

_____

_____

6) What does the term "career" mean to you?

_____

_____

_____

Part B: Career Plans

7. Which of the following best describes your plans for what you will be doing after you have completed high school. (Please check one answer only):

a) I have a specific plan for what I will be doing __
b) I am trying to decide between a couple of different plans __
c) I am not sure what I will be doing, but I have started working on it ___
d) I don't know what I will be doing, but I am not worrying about it now __

8. Which of the following describes what you will most likely be doing in the year after you leave high school. (please check as many options as apply to you)

a) Taking full-time studies at a university, college or technical institute __
b) Taking part-time studies at a university, college or technical institute __
c) Taking other types of training__
d) Returning to school __
e) Working full time __
f) Working Part-time __
g) Working as a volunteer ___
h) Travelling __
i) Other __ Please describe _____

9. How important is it to you to be able to find work that allows you to stay in your community?

__**Very** Important __ **Quite** Important __ **Slightly** Important ___ **Not at all** Important

10) If you had to start work tomorrow, and assuming that you had the proper education ro training, what kind of work would you most likely choose?

_____

_____

a) Why would you choose that kind of work?

_____

_____

_____

11) What are you most **encouraged** about when you think about your career?

_____

_____

12) What are you most **discouraged** about when you think of your career?

_____

_____

13) How important is career planning to you at this time in your life?

Very Important __ **Quite** Important ___ **Slightly** Important ___ **Not at all** Important

a) If career planning is NOT very important to you now, when might it become important to you?

_____

b) If career planning is important to you, what would be most helpful to you right now in your career planning?

_____

_____

14. Please rank the people you would feel most comfortable approaching for help with you career planning. Place a "1" beside the person you would be "MOST" comfortable approaching, a "2" behind the person you would be NEXT most likely to approach, and a "3" beside your third choice for help.

a) My classroom teachers __
b) My CALM teacher __
c) My school counsellor ___
d) My parent(s) ___
e) 0ther relatives __
f) Friends __
g) Someone working in the field __
h) Other people I know and trust __
i) No one ___ Please specify _____

Part C: Career Help

15) There are a number of things that people find useful for career planning. What would you find helpful at this time in your life?

Likert Rating Scale: 0=Don't Know, 1= Not at All Helpful, 2= Somewhat Helpful, 3= Quite Helpful, 4=Very Helpful.

a) Convincing me that career planning is important right now in my life
b) Understanding my interests and abilities
c) Finding ways to pursue the things that I am really passionate about
d) Information about the world of work (e.g. trends etc.)
e) Information about different kinds of occupations
f) Information about opportunities within my community
g) Help with choosing between two or more occupational options
h) Information about post-secondary institutions (e.g., technical institutes, colleges, or universities)
i) Help with planning the next steps in my career
j) Getting support for my career plan
k) Information about financial help for continuing my education
l) Other (please specify)

16) In the past, you may have received help with your career planning from a number of people. Please circle how helpful each of the following people have been with you career planning so far:

Likert Rating Scale: 0=Don't Know, 1= Not at All Helpful, 2= Somewhat Helpful, 3= Quite Helpful, 4=Very Helpful.

A) My classroom teacher
B) My CALM teacher
C) My school counsellor
D) My parents
E) Other relatives
F) Friends
G) Someone working in the field
H) Spiritual or religious groups
I) Youth groups or associations (non-religious)
J) Other (please specify)

The next question has three parts. In the first column, please rate how available each service or resources was. In the second column, indicate whether or not you made use of the services or resource. In the third column, indicate how helpful it was to you.

17) Please rate how helpful the following services or resource have been with your career planning.

Likert Rating Scale This question has three parts.

First Column: Was This Available? (0=Don't Know, 1= Not Available, 2= Yes Available to Me).
Second Column: Did You Use It? (0=N0, 1=Yes).
Third Column: How Helpful or Useful Was It? (0=Don't Know, 1= Not at All, 2=Somewhat, 3=Quite, 4=Very).

a) Career counselling
b) School career information center/career library
c) Career library outside of your school
d) Local/Regional library
e) Community agencies
f) CALM course
g) CTS course
h) Written materials (magazines, workbooks, etc.)
i) Work Experience
j) Computer programs (e.g. CHOICES)
k) Interest Inventories (e.g. Strong Interest Inventory, Self-Directed Search, etc)
l) Career planning workshops
m) Career fairs
n) Internet sites
o) Videos
p) CD-ROMs (e.g.,CareerQuest, etc.)
q) Job Shadowing
r) Other (please specify)

18) When you think about the next few years of your life, how confident are you about the following:

Likert Scale: 0 =Not at All likely, 1 =Not Very Likely, 2=Somewhat Likely, 3=Quite Likely, 4=Very Likely.

a) I will be able to find an occupation that I love to do.
b) I will be able to get the training or education that I need
c) I will be able to find work in the occupation I have chosen.

19. If you find work in your community it will be:

Likert Scale: 0 =Not at All likely, 1 =Not Very Likely, 2=Somewhat Likely, 3=Quite Likely, 4=Very Likely.

d) In my community
e) In my province
f) In my country
g) Internationally

Appendix B

COMPREHENSIVE CAREER DEVELOPMENT NEEDS SURVEY ETHICS REVIEW PROPOSAL

By
Kris Magnusson, Ph.D.
And

Kerry Bernes, Ph.D.

November 11, 1999

1) NATURE, INTENT AND DURATION OF THE RESEARCH:

The proposed research project is a collaborative initiative between the Southern Alberta Center of Excellence for Career Development, of the University of Lethbridge, Faculty of Education, the Chinook Regional Career Transitions for Youth project and the Southwestern Rural Youth Career Development project. The Chinook Regional Career Transitions for Youth/Southwestern Rural Youth Career Development represent the following school divisions:

HOLY SPIRIT R.C.S.R.D. NO.4
HORIZON SCHOOL DIVISION NO.67
KAINAIWA BOARD OF EDUCATION
LETHBRIDGE SCHOOL DISTRICT N0.51
LIVINGSTONE RANGE SCHOOL DIVISION NO.68
PALLISER REGIONAL DIVISION N0.26
PEIGAN BOARD OF EDUCATION
WESTWIND SCHOOL DIVISION NO.74

In partnership, the Southern Alberta Center of Excellence in Career Development, the Chinook Regional Career Transitions for Youth, and the Southwestern Alberta Rural Youth Career Development seek approval for conducting research into the career development needs of students in grades 7-12 from the school divisions listed above. This amounts to approximately 15,000 students. The needs assessment survey forms are attached to this proposal. In total, 6 survey forms have been designed. They are as follows:

- **Survey for students in grades 7-9;**
- **Survey for students in grades 10-12;**
- **Survey for teachers;**
- **Survey for administrators;**
- **Survey for counsellors, Health and C.A.L.M. teachers; and**
- **Survey for parents**

The intent is to get the perspectives of students, parents, teachers, counsellors and administrators on the career development needs of students in grades 7-12. This data will provide the foundation upon which specific programming will be developed to meet the identified needs of youth. This programming will then be evaluated to ensure it is meeting the needs of students. This proposal focuses on the first phase of this project: identifying the career development needs of students in the above school divisions.

The timelines for the proposed study are as follows:

November and December 1999- Approval process
January 2000-Data Collection
February and March 2000-Data Analysis
April 2000-Reports/Presentations back to school divisions, parents etc.

- INSTRUMENTATION/TESTING PROCEDURES

For students, teachers and administrators, data collection will consist of completing a brief (15 to 30 minute) questionnaire during school hours. Parents will be asked to complete a similar questionnaire at home. Informed consent forms will be attached to the front page of the questionnaire for teachers, administrators and parents. Signed parental consent will be obtained in advance for all students. All of the survey forms are attached to this proposal.

3) PARTICIPANTS RIGHTS TO INQUIRE ABOUT THE RESEARCH

The letter of informed consent (also attached) provides the names and telephone numbers wherein participants can gain more information about the research. In addition, information sessions about the results will be provided once the data has been analyzed.

4) PARTICIPANTS CAN DIRECT INQUIRIES TO A RESOURCE PERSON OUTSIDE THE RESEARCH GROUP

The letter of informed consent provides the name and the phone number of the Coordinator of Research at the University of Lethbridge for participants who require additional information.

- PROVISION HAS BEEN MADE FOR OBTAINING INFORMED CONSENT IN WRITING

The letter of informed consent is attached to this proposal.

- THERE WILL BE NO COERCION, CONSTRAINTS OR UNDUE INDUCEMENT OF PARTICIPANTS

Participation in the research will be voluntary, and indicated by a signed consent form (in the case of students, parent consent will also be obtained.

- PARTICIPANTS HAVE BEEN INFORMED OF THEIR RIGHT TO WITHDRAW FROM THE STUDY

The letter of informed consent states that participants have the right to withdraw from this study at anytime.

- CONFIDENTIALITY OF INFORMATION PROVIDED BY PARTICIPANTS

Information provided by participants will be held in a confidential manner and any reporting of the results will not result in identification of individual participants. Each response form will be number-coded, for the purpose of tracking demographic information such as age, grade, size of school, location etc. However, there will be no identifying information on the actual data collection forms.

- THIS RESEARCH DOES NOT REQUIRE INFORMATION TO BE WITHHELD OR FOR PARTICIPANTS TO BE MISLED IN ANY WAY.

- THE RESEARCH BEING PROPOSED IS NOT POTENTIALLY THREATENING OR HARMFULTO ANY PARTICIPANT

Participation is not expected to create any risk to participants. Furthermore, the nature of the items are not likely to arouse negative emotions. In the event that such reactions do occur, the services of the school counsellors and/or family liaison workers will be made available.

Appendix C

Sample Informed Consent Letters

CAREER NEEDS SURVEY LETTER OF INFORMED CONSENT:
PARENTS' CONSENT FOR CHILDREN'S PARTICIPATION

Dear Parent:

The Chinook Regional Career Transitions for Youth project, the Southwestern Alberta Rural Youth Career Development project, and the Southern Alberta Center of Excellence in Career Development of the University of Lethbridge are conducting a study of the Career Development needs of students in grades 7-12. The purpose of this study is to determine what students currently understand about career planning, and what they believe would be helpful in their career planning. We anticipate that your child will benefit from participation in this study by allowing the researchers to find out what the needs of students are so that appropriate programming may be designed to meet their needs. Therefore, we would like permission for your child to participate in this study.

As part of this research your child will be asked to complete a survey asking them what they would find helpful for their own career planning. Completing the survey will take about 15 to 30 minutes. Please note that all information will be handled in a confidential and professional manner. When the results are released, they will be reported in summary form only. No names or any other identifying information will be included in any discussion of the results. You also have the right to withdraw your child from the study without prejudice at any time.

If you choose to do so, please indicate your willingness to allow your child to participate by signing this letter in the space below, and return the letter to the school with your child.

We very much appreciate your assistance in this study. If you have any questions please feel free to call Dr. Kris Magnusson (329-2392)or Dr. Kerry Bernes (329-2447) at the University of Lethbridge. Also feel free to contact the chair of the Faculty of Education Human Research Committee if you wish additional information. The chairperson is Dr. Richard Butt (329-2434).

Sincerely,

Kerry Bernes, Ph.D.,C.Psych.
The University of Lethbridge

I have read and understand the terms described above, and agree to allow my child,_____, to participate in the Career Needs Survey.

PARENT NAME:_____ STUDENT SIGNATURE:_____

PARENT SIGNATURE:_____ DATE: _____

CAREER NEEDS SURVEY LETTER OF INFORMED CONSENT: TEACHERS, COUNSELLORS AND ADMINISTRATORS

Dear Teacher, Counsellor, and Administrator:

The Chinook Regional Career Transitions for Youth project, the Southwestern Alberta Rural Youth Career Development project, and the Southern Alberta Center of Excellence in Career Development of the University of Lethbridge are conducting a study of the Career Development needs of students in grades 7-12. The purpose of this study is to determine what students currently understand about career planning, and what they believe would be helpful in their career planning. We anticipate that your students will benefit from participation in this study by allowing the researchers to find out what the needs of students are so that appropriate programming may be designed to meet their needs. We are also interested in seeing how students, teachers and parents perceptions of student career needs vary.

As part of this research we are asking you to complete a survey of career needs. Completing the survey will take about 15 to 30 minutes. Please note that all information will be handled in a confidential and professional manner. When the results are released, they will be reported in summary form only. No names or any other identifying information will be included in any discussion of the results. You have the right to withdraw from the study without prejudice at any time.

If you choose to do so, please indicate your willingness to participate by signing this letter and returning it with your completed survey.

We very much appreciate your assistance in this study. If you have any questions please feel free to call Dr. Kris Magnusson (329-2392)or Dr. Kerry Bernes (329-2447) at the University of Lethbridge. Also feel free to contact the chair of the Faculty of Education Human Research Committee if you wish additional information. The chairperson is Dr. Richard Butt (329-2434).

Sincerely,

Kerry Bernes, Ph.D.,C.Psych.
The University of Lethbridge

I,_____, have read and understand the terms described above, and agree to participate in the Career Needs Survey.

NAME:_____ DATE:_____

SIGNATURE:_____

CAREER NEEDS SURVEY LETTER OF INFORMED CONSENT:
PARENT PARTICIPATION

Dear Parent:

A little while ago, you received a letter asking for permission for your child to participate in a survey of career needs, sponsored by The Chinook Regional Career Transitions for Youth project, the Southwestern Alberta Rural Youth Career Development project, and the Southern Alberta Center of Excellence in Career Development of the University of Lethbridge. In this phase of the study, we are interested in seeing how students, teachers and parents perceptions of student career needs vary. This understanding will help us to develop better types of programs and services for the career development needs of students in Southern Alberta.

As part of this research we are asking you to complete a survey of career needs. Completing the survey will take about 15 to 30 minutes. Please note that all information will be handled in a confidential and professional manner. When the results are released, they will be reported in summary form only. No names or any other identifying information will be included in any discussion of the results. You have the right to withdraw from the study without prejudice at any time.

If you choose to do so, please indicate your willingness to participate by signing this letter in the space below, and return the letter to the school with your completed survey.

We very much appreciate your assistance in this study. If you have any questions please feel free to call Dr. Kris Magnusson (329-2392)or Dr. Kerry Bernes (329-2447) at the University of Lethbridge. Also feel free to contact the chair of the Faculty of Education Human Research Committee if you wish additional information. The chairperson is Dr. Richard Butt (329-2434).

Sincerely,

Kerry Bernes, Ph.D.,C.Psych.
The University of Lethbridge

I,_____, have read and understand the terms described above, and agree to participate in the Career Needs Survey.

NAME:_____
DATE:_____

SIGNATURE:_____