

THE IDENTIFICATION OF POSITIVE AND NEGATIVE CHARACTERISTICS OF  
THE INTELLIGENT CAREERS CARD SORT™  
AS EXPERIENCED BY UNIVERSITY STUDENTS

by

SUSAN MARGARET WNUK

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Dip.Ed., The University of British Columbia, 1999

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Department of Educational and Counselling Psychology and Special Education

The University of British Columbia  
Vancouver, Canada

Date April 6/01

## ABSTRACT

The purpose of this study was to learn about the experiences of university students who completed the Intelligent Careers Card Sort™ (ICCS) exercise, a new career exploration instrument developed by Arthur, a professor of Management in the School of Management at Suffolk University, Boston and by Parker, a lecturer at the University of Auckland. The card sort is based on the Intelligent Careers model, which suggests that there are three career competencies or ‘ways of knowing’ that individuals need to consider to successfully face the changing workplace. These competencies are ‘knowing-why’, ‘knowing-how’, and ‘knowing-whom’. The card sort is a self-assessment and exploration instrument, which allows clients to see to what degree and how they express these competencies.

This study was completed in two phases. During the first phase, the ICCS was administered to 28 students who were participants in Career Development Groups at UBC’s Counselling Services. These students also completed a brief demographic questionnaire. During the second phase, 20 of those students who completed the ICCS participated in a 30-minute focus group interview that took place three weeks after administration of the card sort. The focus group interviews were audio-taped and transcribed and the contents were analyzed for common themes. Seven different themes and 33 sub-themes were established. The students in general thought the ICCS was a useful part of the Career Development Groups, and they also made constructive suggestions for improving implementation.

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## INTRODUCTION

### The Importance of Career Development in the Contemporary Economic Environment

'Globalization.' 'Downsizing.' 'Outsourcing.' 'Restructuring.' These are all terms that we've become familiar with. They regularly appear in any discussion on the economy, which has changed profoundly in the past several decades as its very foundation has shifted from manufacturing to service. This shift has had profound effects on labour markets and on individual job seekers, yet the most well-known career counselling theories were developed while the economy was still founded in manufacturing. As Howard (1995) notes, these economic changes affect individual workers in a variety of ways. The positive effects include exciting opportunities for creativity, challenge, flexibility and greater control over one's job and lifestyle and more connection with other workers, while the negative effects include such frightening possibilities as job insecurity, uncertainty about the future and increased stress. The challenge for counselling psychology is to help clients seeking career development adapt to these changing realities, and it is vitally important for counsellors to be aware of these economic changes so that we can understand the contexts out of which our clients' concerns arise.

Most of us spend up to one half of our waking hours at work, holding from five to fifteen jobs over the course of our lives (Rayman, 1993). Our careers are vitally important to our personal happiness, success and identity, yet many people make career choices by default, unconsciously 'falling' into jobs through happenstance or for situational reasons. As Super (1957) put it, "The choice of a career is the implementation of a self-concept." We define our roles in society and essentially

ourselves when we make career choices, and changes in the economy ultimately have an impact on individuals at all stages in their career journeys.

Career theorists in the fields of counselling psychology and business management have considered what these economic changes mean and how they will impact individuals, companies and entire industries. One of the most sweeping macro-level changes is the shift to a knowledge-based society in which those who have knowledge will have access to power and wealth. According to Drucker (1993), the western world is undergoing a transformation into a knowledge-based society in which, “the educated person is society’s emblem, society’s symbol, society’s standard bearer. The educated person will represent post-capitalist society in which knowledge has become the central resource. The educated person faces new demands, new challenges, new responsibilities” (p. 211).

Cappelli (1999) has identified three important economic trends sparked by this shift to a knowledge society and their impact on individuals. Firstly, labour markets have risen in importance as shapers of careers, whereas in the past employers were better able to personally manage their employees’ careers. Secondly, job insecurity remains high because of the faster rate of change in product markets, the greater frequency of change within companies, and the pressure on businesses to increase shareholder, often at the expense of protecting employees. Thirdly, outside hiring has increased drastically and this, combined with reduced opportunities for internal promotion, has shifted careers from an ‘inside the firm’ perspective to an ‘outside’ labour market perspective.

Moreover, these changing patterns in work and the workplace are believed to be permanent (Hansen, 1993). This means that career counsellors and theorists need to

develop and test new models, theories, methods and tools to genuinely prepare clients not just by matching them to an occupation, but also by teaching them how to deal with future career transitions. The challenge for counsellors is to help clients develop strategies to cope with the ongoing shifts in the social and economic environment (Herr, 1993) so that they can reap the rewards of economic change. While trait and factor approaches to vocational choice remain useful, more developmental/contextual and holistic approaches are needed as work patterns and workplaces change and individuals seek more balance in their lives (Hansen, 1993).

It is time to question the assumptions that underlie traditional career theories. Two of these assumptions are: 1) that an individual has the ability to enter an occupation once they have made an informed decision about their best personal job match; and, 2) that there is always opportunity to progress within a career path or change paths in what is expected to be a relatively stable or expanding labour market (Borgen, 1997). We need approaches that take into account the influence of rapid economic change, but career research generally features single organizational settings and linear, 'climbing the ladder' hierarchical success within them, maintaining this traditional approach despite the accelerated pace of organizational change (Arthur, 1994).

Career counsellors at university and college campuses face these issues on a daily basis as they try to meet the challenge of preparing students to cope with this new world of work. Most students feel unprepared to enter the job market after graduation (Buckham, 1998, Orndorff & Herr, 1996), and young people are especially vulnerable to changing economic forces (Borgen & Amundson, 1990). The study of university students' career adjustment in the changing economy has been limited, and to prepare

students for realities very different from those that their parents faced, career counsellors must develop and employ instruments and methods that reflect this changing economic context (Herr, 1993).

Schlossberg (1984) has suggested that the critical points of career development are the transitions, such as the ones from school to work or from one career to another. It follows that the effectiveness with which individuals manage these transitions determines to a large extent their degree of career success and satisfaction. People who have developed the ability to move from one career identity or role to another with efficiency have become the directors of their own career development (Rayman, 1993). As Rayman notes (1993), university students can exercise a remarkable degree of control over their career destiny, but they must be willing to take responsibility for themselves, as it is not the primary goal of modern-day career development and placement services staff to find students jobs. Instead, it is their goal to teach young people the valuable skills that they will need not only to get their first job and successfully make the transition from university to the world of work but also to skillfully and efficiently make subsequent transitions from job to job throughout the course of their lives in an increasingly complex and rapidly changing economy and society.

An interdisciplinary approach to the subject of careers and the changing economy would be valuable for both theory building and practice; in particular, research that bridges business management and counselling psychology would provide a broader perspective, taking into account both the needs of the individual and the trends in the

economy. Exploring this diversity will help uncover new theoretical questions as well as new answers (Arthur, Hall & Lawrence, 1989).

Arthur, a Professor of Management in the School of Management at Suffolk University, Boston, and colleagues (1996) has developed a new theory of career called the 'Intelligent Career', which builds on Quinn's (1992) work on the 'Intelligent Enterprise.' This approach comes out of the 'Boundaryless Careers' model (Arthur & Rousseau, 1996), which is founded upon the recognition that contemporary careers, unlike those of earlier decades, are not restricted to one employer or even to one occupation. The Intelligent Career is based on three career competencies, the mastering of which will help individuals in their career development. These are: 1) 'knowing-why;' 2) 'knowing-how'; and, 3) 'knowing- whom.' Based on these concepts, Parker (1996) and Arthur have developed the Intelligent Careers Card Sort™ (ICCS) to help clients assess how their current career behaviour reflects these competencies. The ICCS is also intended to stimulate a self-discovery process by which clients can affirm their values; make decisions about the place career has in their lives, and think about what they would need to do to achieve their career goals.

Card sorts of various types are commonly used instruments in career counselling and have been for several decades. The research on their effectiveness is relatively limited, though what has been done indicates that they are a useful means of promoting self-assessment and vocational exploration (Slaney & Mackinnon-Slaney, 1990).

### Purpose of Study

This study had two purposes. One purpose was to collect information on the card items that students chose most often. The primary purpose was to explore the experience of university students who completed the Intelligent Careers Card<sup>TM</sup>. It was expected that the students would be able to describe how and why the card sort process was or was not useful to them in clarifying their vocational interests and self-understanding. Herr (1988) states that our knowledge of careers and interventions in them is still relatively primitive; therefore, the study of career continues to require the widest combination of traditional and nontraditional methodology possible in order to capture the richness of intervention interactions in the field.

The research participants were university students at the University of British Columbia who were recruited through the four-session Career Development Groups at UBC's Counselling Services. The research was conducted in two phases. During the first phase, which took place in the first Career Development Group session, the ICCS was administered to 28 students who were participants in six separate Career Development Groups, and their card selections and demographic information was collected. During the second phase, which took place in the last group session, 20 students in the same six groups participated in a focus group interview. The criteria for participation was that the student agree to record his or her card selections, fill in a brief demographic questionnaire and submit this information to myself, the researcher, and be able to attend the 30 minute focus group interview at end of the last Career Development Group.

The focus groups were used to explore those characteristics of the ICCS that the students found to be helpful as well as unhelpful. The data from these interviews was transcribed and the contents were analyzed to categorize common themes.

### Research Questions

1. Which card items did university students choose and how do they compare to other populations?
2. What are the positive and negative characteristics of the Intelligent Careers Card Sort™ as identified by university students who are participants in career development groups?

### Definitions

Career: The evolving sequence of a person's work experiences over time (Arthur, Hall & Lawrence, 1989, p.8).

Career Development: The total constellation of economic, sociological, psychological, educational, physical, and chance factors that combine to shape one's career (Sears, 1982).

University student: Refers to students who are enrolled in post-secondary institutions, which are arranged in a hierarchy of studies: Undergraduate or bachelor degrees; Master's degrees and PhD/Doctoral work. I have drawn from Canadian, American and British sources. The American word 'college' is synonymous with the Canadian and British 'university' in practice, so in those instances in which I use American sources I have changed the author's use of 'college' to 'university' for the sake of consistency.

Outsourcing: The practice, by companies, of contracting workers for temporary periods of time to complete specific projects or pieces of work (Quinn, 1992).

## LITERATURE REVIEW

To understand the context of university students' dilemmas when making career decisions, it is important to understand how the economy has changed. Much of the literature concerns the American economy, but due to Canada's geographical, economic and diplomatic proximity to United States, similar forces are at work here as well as in other Western countries. The 'Boundaryless Careers' paradigm is a useful way to conceptually organize these changes, and the career competencies offered by 'The Intelligent Career' provide a way to respond. Knowledge of the career development of university students is necessary to develop career interventions for them, and research on card sorts, though limited, has shown that this is a useful tool to use with this population. Because the ICCS will be administered in career groups, research about career groups is also important in understanding the context of this research.

### The Old Economy versus The New Economy: What's Different?

Although the changes in the economy over the past several decades have occurred as part of an ongoing process and the separation between the old and new economy is not complete or clearly marked, there are nonetheless important distinguishable differences. In the 'good old days' of the post-World War Two working world, jobs were plentiful, secure, and an employee who worked hard could move up the 'career ladder' of success. Workers made long-term commitments of loyalty and hard work to their companies in exchange for long-term job security, training and development, and internal opportunities for advancement (Feldman, 2000). It was once the case that college graduates who went to work for one of the Fortune 500 companies could count

on careers with those corporations until retirement (Rayman, 1993). The demographic landscape of the time was owned by the baby boomers, who were at the right age to fill the jobs created by post-war economic growth.

Beginning with the recession of the early 1970s, however, this relative predictability began to dissolve. Companies began to downsize, laying-off permanent employees in favour of contracting or outsourcing work to decrease costs. Those permanent employees who remained began to see the futility of trying to build their careers with one employer, and the stock market crash of 1987 and the resulting recession was the final blow to the traditional, predictably expanding economic model. Where once large corporations were seen as bastions of job security, they now represented job insecurity (Feldman, 2000). Even when corporations started increasing profits after 1990, they continued to downsize to generate larger returns to shareholders.

The most basic shift and as a result the most profound and far-reaching, has been the one from manufacturing to service (and with it the rise of the knowledge society) as the foundation of the economy: in 1920, 46% of non-farm wage and non-salary employment in the US economy was in the goods-producing sector and 54% was in the service producing sector; by 1990, the goods producing sector expanded to 77% (Rayman, 1993). Manufacturing jobs have always been higher paying than comparable positions in the service sector, but as more and more manufacturing plants have moved offshore the number of high paying jobs in manufacturing has diminished substantially (Rayman, 1993). Even though this trend has negative implications, writers such as Quinn (1992) see the service sector as a great generator of wealth and a source of value to the economy and society when it is managed well.

One of the most notable features of today's economy is the lack of job security, with a sharp rise in unemployment for white-collar employees, especially relative to other groups (this is an especially important trend for university graduates, most of whom are geared to professional occupations). This is another trend that began in the 1970s with the long-term decline in real wages and it accelerated with the company restructuring or downsizing waves which began in the early 1990s. In the context of tight labor markets of the late 1990s, it is probably true that the number of 'good jobs' (as defined by a job that fills the economic, social, emotional and intellectual needs of the individual worker) in the economy is not falling and may even be rising, but overall job insecurity remains high (Cappelli, 1999). In those high technology sectors where employees are in demand, turnover rates are especially high and job tenure is considerably shorter than in the past.

McQuillan & Adams (2000) interviewed human resources specialists in health care, transportation equipment manufacturing organizations (primarily automotive assembly and automotive parts producers), and chemicals producers in Southwestern Ontario. The primary goals of these studies were to discover the employment needs of organizations in these industries, and to identify the skills and characteristics that workers would need to gain employment.

They found that across all industries managers emphasized a strong commitment to increasing the use of technology. It was found to be the case that technology requires a different use of workers, different workers with different skills, and the elimination of middle-management jobs. The use of technology allows a move to 'lean production', which means reorganizing jobs and production processes to produce more with less

labour and fewer resources. The adoption of lean production is generally associated with a series of changes which include organizing workers into work teams, broadening the scope of workers' duties and encouraging workers to participate in the smooth running of the organization by finding ways to speed up their own work.

McQuillan & Adams (2000) found that there is a belief among managers that organizations must become 'flatter', meaning that workplaces will become less hierarchical as middle-management and supervisory positions are eliminated. While some organizations have retained their hierarchy, they have downsized to become 'thinner' so that they have fewer workers at every level in the hierarchy, especially in the top layers. Organizational restructuring is also altering the kind of work that is available and the kinds of skills and abilities demanded of workers.

Although their study did not directly ask about recent organizational downsizing, McQuillan & Adams (2000) found that a number of respondents volunteered that they had recently downsized or would be downsizing soon. There are fewer job ladders, and much shorter job ladders. Jobs are broadened in scope. It was found that workers are expected to take over some of the tasks that used to be performed by supervisors and superiors, as well the tasks that were performed by others prior to downsizing. Restructuring has also encouraged a team approach to production.

A large majority of respondents in each sector (McQuillan & Adams,2000) said that they look for different abilities and qualities from their workers than they did in the past. In particular, managers stressed the importance of hiring workers who are educated, willing to learn, flexible, and able to work with technology. Managers also desired workers who possess a number of the 'soft skills' currently valued under present

managerial philosophies, including the ability to work with and communicate with others, the ability to handle a diversity of tasks, problem-solving skills, leadership abilities, decision-making skills, a willingness to take initiative and self-motivation.

Many of the managers argued that they now require higher levels of education and training from incoming workers than they did in the past, as they believed current jobs require a more educated and knowledgeable worker. Also, education was taken as an indicator of an individual's ability to learn and adapt (McQuillan & Adams, 2000).

Managers (McQuillan & Adams, 2000) also said they wanted workers who will be flexible in their skills and in terms of the work that they do. Workers who are part of teams need to be flexible enough to do all the different tasks for which the team is responsible. Moreover, managers want workers flexible in their abilities and skills so that the company can move them around to different occupations or work areas with the knowledge that the worker can adapt and perform. Flexibility in terms of attitude also means that when workers are finished with their work, they are willing to help others with their tasks. Flexibility also means a willingness to change location.

#### New Challenges for Counsellors and Clients

Counsellors see the repercussions of these economic shifts in the fears of clients who seek career development in a world without clearly proscribed roles and procedures. The major challenge for counsellors is to help clients develop strategies to cope with major shifts in the social and economic environment. Individuals need support in making sense of the situations in which they find themselves, and help in developing new expectations and action plans that fit the new realities (Borgen, 1997).

The world is now engaged in economic transformations that are no longer confined to national boundaries, but the demands on individuals who want to succeed are great. They need skills such as learning to learn, dealing with change, being a self-initiator, self-assessment, job seeking, interviewing, resume preparation, and networking skills (Herr, 1993).

In the industrial economy, people reached a working position by means of institutional forces (such as family, culture, school, church, government, authority figures and later companies and supervisors), which provided the person with a career identity and direction. Furthermore, these institutions usually ensured that the person reached and remained at a work destination that fitted his or her identity and direction. In other words, individuals were largely *objects* shaped by the decision-making processes of institutions and firms; in contrast, they are presently under growing pressure to become *subjects* by projecting their own career preferences onto the institutional world. In the past the responsibility for work allocation lay with those acting on behalf of the worlds of education, job provision and business life, but now responsibility is weighing more heavily on individuals themselves. Today, these social forces give individuals an ambiguous picture of direction and identity, which results in clients lacking a clear awareness of their direction and identity. These social and institutional forces affect career counsellors as well as they often have difficulty viewing the whole picture and understanding the direction of social change (Wijers & Meijers, 1996).

Wijers and Meijers (1996) state that to successfully negotiate the new economy, people must become actors, individuals who have the qualities needed to enable them to

appear on the social stage as an actor rather than as a passive victim. In short, an actor is not submissive or lost in the grip of controlling psychosocial forces. A lack of actor competencies confronts individuals with a serious problem and it is for this reason that the role of the career counsellor is so important. Traditionally, the counsellor had to help a client choose an occupation. In a post- industrial or knowledge society, the main task of a career counsellor is to facilitate the ongoing process of learning and decision-making. In today's society individuals face the task of getting and holding a job repeatedly and may be forced to review their career several times in the course of their lifetimes.

To become an actor means one has to master three tasks (Wijers & Meijers, 1996): 1) to form an identity, 2) to determine direction, and 3) to plan a career and steer themselves in it. In the first post-war decades the formation of an identity was a largely unconscious process (Wijers & Meijers, 1996) because the socializing influences of institutions was so strong. Now that there are vastly more choices and opportunities to create lives that differ from the more limited traditional ones, individuals are constantly facing the challenge of examining and testing their self-knowledge and organizing their various roles into a congruent identity. Once this task is learned, finding a direction becomes the next question. Determining a direction for oneself is difficult because individuals have more occupational choices to consider and other needs to prioritize, such as the balance between work, family and self-care. With the social changes that resulted in the mass movement of women into the workforce, traditional roles and lifecycles can no longer be assumed. The social trajectory that ran from leaving the parental family, to education, to the labour market, to becoming a parent oneself, and on

to retirement is no longer the only one. Increasing international connection, based on greatly increased opportunities for communication and transport, have led to the paradox of the global village in which old cultural and social frameworks are largely inadequate to the task of helping individuals interpret and plan for action in the face of the growing complexity of the contemporary world (Wijers & Meijers, 1996).

The next step is for an individual to develop the skills needed to gain and retain a place in work. Specifically, this means that one needs to gain insights into one's field of interest and to learn about the required skills needed to take action. This leads to the need for education, so that individuals can mold the development of their talents, interests and identity to work. Once individuals become appropriately qualified, they can make a valuable offer to the labour market. In other words, individuals need sociological and economic knowledge in order to obtain an insight into future market demands in the field of their choice and to begin to act on that basis; the technical-instrumental qualifications appropriate to the future market demands in the field of choice, including the capacity to continue in the future to obtain through education the correct technical instrumental qualifications, and the social skills needed to effectively enter the labour market (Wijers & Meijers, 1996).

To become an actor means to reflect on experience and to become aware of what one does and does not know and how one learns best. This requires creativity, flexibility and a sense of adventurousness. An employee with few actor competencies is vulnerable. If the organization gets into difficulties he or she goes into dysfunction. This is a painful experience for the individual and is a burden to the company (Wijers & Meijers, 1996).

If an actor is to plan his or her educational and professional career in the knowledge society, it is obvious that career guidance counsellors should play a role in the development of these competencies. The counsellor will place the main emphasis on the determination and clarification of learning goals and the stimulation and planning of learning processes. This consists of offering support to individuals as they go about forming their identities, determining their directions, and planning their careers (Wijers & Meijers, 1996). Whereas the traditional practice of matching an individual to a specific job title has short-term value in today's world, teaching clients the skills necessary to appraise themselves and their context is one that will have long-term benefits.

#### The Career Development of University Students

Economic changes affect all job seekers and university students in particular, as most are just beginning to develop a career identity and venture into the world of work. Jack Rayman (1993) highlights the most important influences on students, most of which parallel the developments in the new economy. These include the restructuring of business and industry; increasing global competition; the shift from a manufacturing-based to a service-based economy; the move to small companies and organizations as sources of economic growth; an increased debt burden for many students and decreased funding within Universities.

Many students are at a loss as to how to respond to these changes and as a result many face their graduations with trepidation and even fear. Many do not have a career goal and lack the skills for navigating a world that is very different from that of higher

education. Their parents are usually not in a position to help them understand a world that has changed so much since their own youths. Research on the career development of university students shows that they are in need of career planning as well as information on the economy.

Buckham (1998) interviewed 24 third and fourth year undergraduate university students in Britain to explore their career development processes. One of the common themes was the lack of positive expectations about the future and a sense of being unwanted in the labour market. A second theme was that students were aware of the need for even more education in the form of postgraduate training. A third theme was their awareness of the extent to which employers were no longer able to offer long-term career prospects of the sort to which university graduates were traditionally accustomed. Even though the students constantly discussed career ladders as vertical, they recognized that the majority of graduates would not have this career ladder in place and would have to be flexible and versatile in terms of entering the labour market; that they would have to compromise over starting salary and would possibly face a stigma as a university graduate without a high status job. Coming to the end of a degree, where one has been on the structured pathway of education (represented by courses, exams, and completing the next assignment), the students in her study were faced with a fear of the future. They lamented their lack of understanding about 'the real world' and recognized that they needed deeper levels of knowledge and understanding about the changing labour market (Buckham, 1998).

Lewallen (1993) researched American university students to see if being decided or undecided about their careers and/or educational goals had an impact on whether or not

they completed their degrees. While this study countered the popular wisdom that undecided students are prone to dropping out, it also found that there are several reasons that explain why university students are undecided in the first place. Firstly, for developmental reasons (Levinson, 1978, 1996) career or vocational choice can be a distant concern at college entry. The majority of students change their career choices and majors as they move through their course of studies. Secondly, the number of potential majors at some institutions is overwhelming, with as many as 100 fields of study leading to a bachelor's degree. Thirdly, students who enter higher education come from high schools that vary enormously in the types of career and educational planning services they provide. Fourthly, students who enter college are probably at varying stages in their career development. In fact, between 50-75% of students who enter higher education are undecided or change their majors along the way. Being undecided is not the exception but rather the norm (Lewallen, 1993).

Orndorff and Herr (1996) conducted a study of 189 undergraduates at Pennsylvania State University, half of whom had declared their majors and half of whom had not, to explore the characteristics of undeclared and declared students in relation to career uncertainty and to their involvement in the career development process. The results of the study showed that declared as well as undeclared students functioned at a relatively low level in exploring occupations, meaning that they lacked the skills and knowledge needed to make an informed choice.

Borgen, Hatch & Amundson (1990) conducted a critical incident study of 12 unemployed university graduates under the age of 25 to assess the effects of unemployment on this population. They found fluctuations in emotion, an 'emotional

roller coaster', and reduction in self-confidence that suggested that college and university counsellors can help prospective graduates by discussing the environmental factors that may pose a challenge to the smooth career entry that was once assumed to be the norm.

Another issue is that many university students are now working while completing their degrees, often in jobs that are not congruent with their interests. Due to the very economic changes discussed above, especially the lack of funding for universities and high student debt loads, the percentage of students (which some estimate to be over 60%) who work during the academic year has steadily increased since the 1960s (Luzzo et al., 1997). Luzzo, et al. (1997) completed a study on the decision-making factors associated with employment among first-year university students. They found that students who were employed in occupations congruent with their career interests showed significantly more of an internal career locus of control than their peers. Their results indicated that students working in jobs related to their career interests are likely to believe more strongly than other students that they have significant control over the career decision-making process. The authors suggest that these students would benefit from counselling interventions that emphasize the importance of seeking employment congruent with their interests and goals.

Heppner and Johnston (1993) recommend that university career counselling centres base their practice on sound psychological and philosophical foundations, engage in practice that is guided by research, and conduct research that is guided by practice. They believe that two important parts of what make career counselling a profession are its firm grounding on scientific theory and its continued reliance on data-based research

to guide practice. In order to maintain professionalism and provide the most effective services to clients, it is critical for practice to be guided by research and for career services to be based on research that is guided by practice. They suggest the use of qualitative and single subject research designs, as these tend to lead to more useful findings and implications for the practitioner.

#### Organizational Theory on the New Economy: 'Boundaryless Careers'

'Boundaryless' organizations, which have been recognized and studied as a unique organizational form since the 1960s, are those that have emerged in response to the globalization of the economy and the movement to information-driven service-based business (Mirvis & Hall, 1994). The 'boundaryless career' is the antonym of the bounded or organizational career that has been the preoccupation of most research and assumes that careers take place within a single occupation and even a single company. Arthur (1994), defines a career as boundaryless as one which displays any of the following characteristics:

The first is when a career moves across the boundaries of separate employers. A second meaning is when career, like that of an academic or carpenter, draws validation and marketability from outside the present employer. A third meaning is when a career, like that of a real estate agent, is sustained by extra-organizational networks of information. A fourth meaning occurs when traditional organizational career boundaries, notably hierarchical reporting and advancement principles, are broken. A fifth meaning occurs when a person rejects existing career opportunities for

personal or family reasons. Perhaps a sixth meaning depends on the interpretation of the career actor, who may perceive a boundaryless future regardless of structural constraints. A common theme to all these meanings is one of independence from, rather than dependence on, traditional organizational career principles (p. 296).

The boundaryless career is marked by a variety of tasks that may or may not be easily transferred into a job title, is marked with a periodic redefinition of profession, and often includes several career and job changes over the course of a lifetime. As a result, career development is seen to be more cyclical or lateral than linear and involves periods of decision-making, information gathering and retraining. This model of career progress is new and is not yet accepted as the norm as it seems the opposite of the onward and upward 'career ladder of success' ideal that drives the work ethic, but there are several advantages to the new concept: it opens up new ways to think about career over time; it acknowledges that work and non-work roles overlap, and it suggests other possibilities for the relationship between employees and employers (DeFillippi & Arthur, 1994). Individuals are more responsible for their own career development and can take charge of their careers rather than following a corporation's definition of career development (Mirvis & Hall, 1994). The ideal boundaryless career is characterized by a career identity that is employer-independent and is based on the accumulation of flexible know how (how to work in an innovative, efficient, and/or quality enhancing way) and the development of networks that are inter-organizational (occupational and industry based) non-hierarchical and are initiated by the worker (DeFillippi & Arthur, 1994).

Although the boundaryless careers concept is fairly new, its ideas and predictions about careers is being supported by research. Arthur, Inkson & Pringle (1999) conducted semi-structured interviews with 75 workers, ranging in ages from 25 to 66 and from 9 different occupational groups in New Zealand with the purpose of gathering contemporary career stories to explore and develop common themes. They found several trends that support the boundaryless career concept such as high mobility, with the majority of participants changing employers at least once over the ten-year period of the study. Most of the job changes the participants voluntarily made did not involve career advancement, and new career directions frequently involved changes in industry, occupation and/or geography. They also found that, rather than follow a linear, upward movement; cycling or spiraling better characterized many careers. In cycling, workers move between full-time and part-time work and between work and family commitments. In spiraling, the career actor moves through different career settings, motivated by a strong desire for personal learning and development (Arthur, Inkson & Pringle, 1999).

### The Intelligent Career

The 'Intelligent Career' is an extension and crystallization of the boundaryless career as it is marked by several skills or competencies, which in turn originate in organizational theory on successful business practices. This organizational theory, the subject of Quinn's (1992) book, The Intelligent Enterprise, suggests that to succeed in the new economy businesses must develop and maintain specific competencies which relate to the firm's culture, know-how and networks. Briefly, culture encompasses the

values and beliefs that support planned behaviour, know-how involves accumulated skill and knowledge, and networks represent the human relationships necessary for a firm's successful participation in the economy (Hall, 1992). Each area of business competency suggests a matching area of an individual's career competency: 'know-why,' 'know-how' and 'know-whom' skills. A company that ignores the development of these competencies may struggle to find success; likewise, an individual who does the same may have a difficult time experiencing a successful boundaryless career (DeFillippi & Arthur, 1994).

These three competencies entail the recognition and development of important areas of one's life. Knowing-why pertains to meaning, to one's personal beliefs and values, and to those things that motivate a person to pursue a certain career path. Knowing-why often involves something other than the pursuit of permanent full-time employment, such as family and other non-work factors that are likely to affect the overall commitment and adaptability a person brings to their careers. (Arthur et al., 1995; DeFillippi & Arthur, 1994).

Knowing-how refers to the skills and knowledge a person brings to his or her career and to a company's overall know-how. These skills are developed through formal occupational classroom learning or self-study as well as hands-on learning at apprenticeship programs and on the job training. It is undeniable that in today's economy the increased maintenance and enhancement of technical and functional (learning to learn) skills helps individuals in their career development (Feldman, 2000). People who pursue the growth of this competency often spiral across a variety of

employment settings in the course of their careers (Arthur et al., 1995; DeFillippi & Arthur, 1994).

Knowing-whom refers to the connections between individuals. These interpersonal relationships may link people to employment opportunities, to developments within their field and to the goings-on inside and outside their company. Knowing-whom itself can be seen as a boundaryless competency as it extends to relationships beyond those with work colleagues to include those with old school and college acquaintances, previous employer or industry affiliations, professional associates, and family and friends (DeFillippi & Arthur, 1994). Networking has been recognized as an important source of employment opportunities for some time, as individuals increasingly rely on peers for informal coaching, training and counselling. Professionals, in particular, have their own networks that allow them greater ability to receive coaching outside the bounds of formal organizations (Feldman, 2000). This relational view of career shifts the focus from individual traits and abilities to the interpersonal relationships and social contexts which play an important role career development. Based on concepts of mutuality and reciprocity, a relational view emphasizes interdependence rather than dependence on organization and institution that is the hallmark of traditional careers (Parker, 2000).

Under the old economy model, knowing-why was assumed to centre on long-term commitment to the company; knowing-how was developed according to the company's, not the individual's, interests, and knowing-whom was exclusively about co-worker relationships. In contrast, the Intelligent Career suggests that knowing-why is about asserting and retaining a clear occupational identity; knowing-how involves constantly

upgrading and adding to the range of skills one can offer to the occupational marketplace, and knowing-whom is about connecting with others, especially those with expertise, inside and outside one's occupation (Arthur et al., 1995).

The Intelligent Career provides a uniquely holistic view, an essential characteristic for effective career counselling, as career counsellors must deal with the whole person (Savickas, 1996), in two ways. The first way is through the emphasis on the three interdependent yet conceptually separate competencies. The call in the new economy is to know one's own aspirations and strengths, to maintain a reflective posture and to adapt successfully to a changing environment (Drucker, 1997). The Intelligent Career framework allows for the interplay of these three competencies, or three ways of knowing, to provide a holistic view of career spanning commonly disparate ideas about interests or knowing-why, skills and abilities, or knowing-how (Spencer & Spencer, 1993) and personal relationships, or knowing-whom. This perspective also draws attention to changing career patterns that can emerge from any of the three ways of knowing. For example, a change in a person's interests (knowing-why) will lead to the development of new skills (knowing-how) and new relationships (knowing-whom). Rather than a single theory of career, the intelligent career offers an organizing framework through which people can integrate objective knowledge with subjective interpretations of that knowledge (Parker, 2000).

The second way that the Intelligent Career paradigm provides a holistic view is that it gives people the opportunity to consider work in the overall pattern of their lives, not as separate from it. This acknowledged interdependence of one's work and private lives

supports individual learning and contributes to the employability and security of individuals in their environment (Parker, 2000).

### Counselling Psychology Career Theory

The career counselling literature that comes out of counselling psychology is vast, dating from the late nineteenth and early twentieth century. Parsons (1909) is recognized as one of the founders of career counselling because of his development of a trait and factor conceptual framework for helping an individual select a career. The economy and society have changed profoundly since then, and new counselling psychology career theories, many of which share common features with the Intelligent Careers model, are being developed.

Traditional career theory comes out of a social and political context, that of the old economy, that assumed a Cartesian view of the world that is based on Newtonian, or deterministic science (Parker, 2000). The Intelligent Career, on the other hand, acknowledges that careers are composed of a variety of experiences that do not conform to assumptions of linearity. Personality traits have traditionally been used to predict people's career preferences. Other aspects of career theory have focused on the constraining and enabling factors in the environment. In contrast, it is the character of the subjective experience that provides a realistic understanding of people's experiences at work (Bailyn, 1989). This requires a more holistic perspective than many of the traditional theories represent, and one that embraces the idiosyncratic interactions among jobs, occupational choice, personality and work. Rather than try to supercede traditional theories, however, it is preferable to see both traditional and new career

theories as complementary ways of knowing. This integration would allow for career theory to have a dynamic interactional perspective (Herr, 1996).

Few career theories place the individual career actor at the heart of the matter. Instead, they focus on a career problem and set out to solve it (Parker, 2000). A client-centred approach, on the other hand, is based on several important underlying and interdependent assumptions. One is that people are at the centre of a continually changing world of subjectively interpreted experience. This means that an individual's world can only be truly known by the individual and that the only reliable way to understand behaviour is from the individual's own perspective. An individual's perceptual world is their reality and they react to it as an organized whole being (Parker, 2000). As Roger's (1951) work emphasized, it is important to recognize that a person is a totally organized system, which seeks health and integration.

Traditional career theory can be divided into four main waves that follow each other chronologically. The first is trait and factor theory, which assumes a static view of the person and the environment and seeks to categorize the differences between people and environments. The second is the developmental approach, which assumes a linear progression throughout life and takes into account environmental factors, emphasizing process over stasis. The third is social learning theory, which reflects the current emphasis on learning as a social function (Parker, 2000). The fourth wave is the less developed one of new theories and has most in common with the Intelligent Careers model. It takes into account current economic realities and views people in a holistic way. Each of these waves will be discussed in more detail below.

Trait and factor approaches form the foundation of career theory, dating to the work of Parsons (1909), who believed that individuals need self-knowledge, knowledge about the requirements needed to enter a certain occupation and the ability to rationally consider this information to make a good occupational choice.

John Holland, the key author associated with trait and factor theory, similarly stressed the importance of self-knowledge in the search for vocational satisfaction and stability as well as information on occupational requirements and differing occupational environments (Zunker, 1994). His theory is based on the division of people and environments into six different occupational types, and the belief that congruence between a person's personality and work environment will lead to career satisfaction. Knowledge of the self and knowledge of the economic world are basic to his model.

While trait and factor theory is useful, the career questions we face today are no longer the same as the ones trait and factor theory was designed to address. There is the issue of assuming that personality and environmental factors remain constant, and also of using a directive 'test and tell' approach which ignores subjective experience. Trait and factor theories continue to have a prominent place in career counselling practice in part because of the number of instruments developed to apply the theory, such as the Strong Interest Inventory and the Self-Directed Search. Personal attributes such as values, interests, and motivation which make up the Intelligent Career knowing-why competency have been recognized by trait and factor theories, but there is little attention paid to the reality of people and careers changing over time (Parker, 2000).

Unlike trait and factor approaches, which are based on a static view of the world, developmental theories describe the movement of individuals through different stages

over time. For example, upon graduating high school, a person will typically go through an exploration stage, will make and enact a career choice, spend a period of time establishing themselves in that choice, and ultimately retire. The descriptions of these stages were drawn from the work of Erickson (1963), Levinson (1978, 1996) and Schlossberg (1995).

Donald Super, the primary theorist associated with developmental theories, believed that career development started at birth and continued throughout the life span. He emphasized personal and psychological factors, focusing on how individuals choose and adapt to their choices, as well as social factors and the assessments individuals make of their socioeconomic contexts. Environmental factors such as family, school, peer group and labour markets are recognized as important (Zunker, 1994). Super also talked about the multiple roles that people enact during a lifetime.

Nevertheless, developmental theories are limited in their applicability to current realities. While they assume change over time and the ability of people to adapt to different roles, they were based mostly on white, middle-class men, which has been critiqued by feminist therapists (Gilligan, 1982). Also, these theories neglect the reality of a changing environment (Parker, 2000). Furthermore, Super's emphasis was more analytical, studying individual psychology and how individuals came to make decisions, whereas the Intelligent Career model is pragmatic, interested not only in the forces that shape individuals, but in how individuals as actors embedded in particular economic contexts can constructively respond.

This emphasis on context is the domain of social learning theory, which focuses on the learning that results from the interactions between people and their environments.

Derived from Bandura's (1977) general social learning theory of behaviour, these theories acknowledge the role played by innate and developmental processes.

Krumboltz, whose work was based on Bandura's, retained many of Bandura's concepts but introduced alternative terms to describe learning experiences which are influenced by social, cultural, economic, geographic and political circumstances (Krumboltz, 1994).

Krumboltz (1994) extended his social learning theory of decision making into a learning theory of career counselling as a way to connect theory and practice. Mitchell and Krumboltz (1994) propose four areas that career counsellors must address in working with clients. First, counsellors need to help people explore new areas in which to develop skills rather than merely identifying past interests. Individuals often expand their range of interests by trying new things. Second, counsellors need to prepare people to enter a rapidly changing work environment. Third, clients need to be supported in the action they need to take to implement their decision. Finally, clients and counsellors need to broaden their scope of concerns to include all parts of the person's life.

Mitchell and Krumboltz are clear that counsellors need to facilitate on-going learning.

From an Intelligent Careers perspective, social learning theory address areas of career growth. Certain aspects of these theories relate to knowing-why and knowing-how. This approach relates knowing-how competencies to existing job descriptions and therefore company- prescribed success. However, these theories largely ignore the knowing-whom competency (Parker, 2000).

The fourth wave of career counselling theories is less clearly defined and less developed than the first three and is populated by a variety of theorists. For example,

Gysbers, Heppner and Johnston (1998) review changes in the workplace and reflect on the consequences for individuals. Like the authors of *Intelligent Careers* (Arthur et al. 1995), Gysbers and Moore (1975) advocate a holistic life career development perspective, and they believe that clients need to learn about labour markets and develop social support systems (similar to the knowing-whom competency). Furthermore, Gysbers and Moore believe that individuals must be assisted in the development of self-knowledge (knowing-why) and interpersonal (knowing-whom) skills; career planning and self-placement competencies (knowing-how), and knowledge and understanding of their current and future life career roles, settings and events, all factors which are compatible with the *Intelligent Careers* model.

Another counselling psychology career theorist whose work parallels Arthur et al.'s (1999, 1997, 1996, 1995, 1994, 1989) is Amundson (1998). Amundson takes a holistic perspective to career with 'The Wheel,' a model of the career development process. The hub of The Wheel is labeled 'career goals', and its outer edge is composed of the factors that play a significant role in career decision making: educational background, skills, interests, values, personal style, significant others, work and leisure experience and the labour market. Furthermore, Amundson discusses the importance of values (similar to the knowing-why competency) in career decision-making and support and informational networking (similar to the knowing-whom competency). Amundson (1998) has also developed a model of career competence which includes skills that correspond to the *Intelligent Careers*' three competencies: developing a clear sense of direction and purpose (knowing-why); good problem solving skills (knowing-how); the ability to communicate effectively with clients, colleagues and others (knowing-

whom); theoretical knowledge of one's field that is kept current (knowing-how) and the ability to gain practical experience to apply theoretical knowledge (also knowing-how).

Borgen and Amundson (1998) have developed a program named 'Starting Points', which was designed to be delivered in a career counselling group. To help clients overcome the roadblocks they will encounter on their career journeys, these authors have constructed a conceptual 'Backpack of Assets,' which contains attributes that closely parallel the Intelligent Career's three career competencies. These are skills (knowing-how), personal strengths (knowing-why), and support networks (knowing-whom). The Starting Points program elaborates on these, emphasizing the importance of networking; work experience; mentoring and job education/search skills; self and career exploration; learning how to enhance work-related skills, and learning about the labour market. In a follow-up study of the program, Borgen (1999) found that a "substantial majority of the clients found the program to be helpful to them" (p. 112).

Rayman (1993), in his chapter on contemporary career services for university students, describes a three-step career development paradigm, which also complements the Intelligent Careers model. Rayman's model, like Arthur's, consists of three types of knowledge: 1) Know thyself, 2) Know the process, and 3) Know the world of work. Know thyself consists of self-knowledge learned during an exploration of one's values, interests, abilities and motivation, similar to knowing-why. Know the process includes decision-making skills, job seeking and job getting skills and the obtaining of specialized education and training, similar to knowing-how. Know the world of work includes learning about the workplace by reading about it, talking about it with those who know, seeing it and experiencing it. This knowledge can be seen as a combination

of a less developed version of knowing-whom and knowing-how. Individuals cycle through these stages throughout their lifetimes, aiming for higher levels of job satisfaction, job success and personal fulfillment. Rayman proposes that university career and counselling centers consider these knowledges in an effort to provide comprehensive and meaningful services to students who are about to enter the current world of work.

Clearly, counselling psychology and business management share much in common in their approaches to career development and the changing economy, though the emphases have been different. Traditional counselling psychology theory is in general more interested in individual adjustment, analyzing individual personalities and explaining why a person's career development has evolved the way it has. Traditional business management career theory considers organizational development and the economy and recommends actions individuals can take so that they can successfully adapt. More recent work in counselling psychology and organizational development has begun to converge. Although the Intelligent Careers model comes out of organizational research and development, it shares much in common with new approaches in counselling psychology. These commonalities support an inter-disciplinary approach that unites these two views in an effort to provide a richer perspective.

For the present, there are three principal reasons that suggest both a theoretical and practical value in using the Intelligent Career framework over any single traditional model, particularly those of the first three waves of Counselling Psychology career theory, which are the well-known and most commonly used. First, the Intelligent Careers model uses a person-centred stance while traditional theories are problem-

centred. Secondly, traditional theories examine parts of people's lives rather than their lives as a whole. This encourages the division rather than integration of competing interests and responsibilities. Integration into a holistic whole is necessary to provide the full picture needed to inform career development. The third reason is that the Intelligent Careers model recognizes the importance of and encourages life-long learning (Parker, 2000).

The segmentation of a person's work life from their personal life has led to the consideration of career counselling as separate from career. This split recognizes that multiple aspects of the self exist when it comes to non-career counselling, but only considers a vocational self separate from any central organizing self when it comes to career counselling (Richardson, 1996). However, the basic skills that are used in personal counselling are needed for successful career counselling as they help to draw out a person's subjective point of view. Establishing and maintaining a relationship, empathy, listening skills and dealing with feelings in depth are different from and more important than matching traits to occupations (Parker, 2000).

The omission of an emphasis on relationships from traditional career counselling models contradicts research in relational approaches that suggest how important relationships are. They matter not only because they provide support to career actors, but because of the positive interactional effect they have on the career actor in terms of identity (knowing-why) and also skills development (knowing-how) (Parker, 2000). The knowing-whom competency is complex, in that it involves relationships that function to provide social support, such as those with family and friends, as well as those that directly further an individual's career by enhancing knowledge, such as those

with colleagues and supervisors. These categories of relationships also overlap; for example, when individuals receive social support from co-workers. This complexity reflects the reality of most individuals, who have a variety of overlapping relationships with people in their work life and in their personal life. Furthermore, this perspective again reflects the holistic nature of the Intelligent Career model, recognizing the many interconnected and interacting aspects of a single life.

The interaction between these ways of knowing connects people with their environments through a dynamic process of enactment (Parker, 2000) in which they have the opportunity to practice the skills they have learned and the to live out the choices they have made. The theory of Intelligent Careers shows that while the explicit inclusion of the knowing-whom competency would enhance career theory, the appreciation of the interdependency among the career competencies would play as important a role (Parker, 2000). Current management and organizational literature suggests that to cope with the increasing ambiguity and complexity in the world of work, we can recall the sense of traditional community that provided strong connection with others (Drucker, 1997).

#### Card Sorts as Career Development Interventions

The translation of the Intelligent Careers theoretical model into a practical card sort exercise will be discussed in the Method section, but it is important to review the literature on the origins of card sorts as career development instruments as this information helps to confirm the proposed value of the ICCS as an instrument.

Card sort design emerges from the Q-technique research method. Stephenson (1953) provides a thorough, foundational discussion of the statistical properties of the Q-technique and its uses in social, clinical and self-psychology. The procedure for Q-technique is simple: a sample of statements, usually 70-50 in size, is shuffled and the participant is required to discriminate between the statements to place them in about 10 different categories. The statements typically appear as individual cards or on a questionnaire. The population samples are small and error variances can only be estimated with replication. Stephenson (1953) stresses that the purpose of Q-technique research is not to prove or disprove a theory but to use theory as a guide to explore the relationship between theory and data: "Our essential interest is always in facts that we hope to reach in relation to our samples. What is general, therefore, is one's theory or explanation, and never any proposition or the operations that put it to empirical test" (p. 76).

In Q-technique, any sample of statements that is composed is, in principle, as acceptable as any other for the same design, but care is taken about such matters as conciseness, clarity and representativeness. It is essential to achieve homogeneity in the statement sample so that no item is chosen for special consideration on extraneous or incidental grounds, such as unusual wording compared to other items, a marked difference in length of the item compared to others, or a noticeable change in subject matter compared to other items. The investigator is also saved from any necessity to be exhaustive: since any one sample is, in principle, as acceptable as any other, it is always possible to put together additional samples for any given design, almost indefinitely.

In terms of practical considerations, however, it is often necessary to collect a universe of statements for a research project. This can be achieved by conducting interviews with individuals knowledgeable about the topic composing a list of statements with the help of a small committee of judges. Q-technique has applications in every branch of psychology where behaviour is at issue, precisely because its concern is with segments of behaviour (Stephenson, 1953).

Many career counsellors have adopted the principles of Q-technique, perhaps unknowingly, in the frequent use of card sorts in career counselling. The use of card sorts in counselling, however, is not usually motivated by research but by the desire to help clients explore and learn about their career options. There are five commercially available vocational card sorts: the Non-Sexist Vocational Card Sort; the Missouri Occupational Card Sort; College Form; the Occ-U-Sort; the Vocational Card Sort that is incorporated into the Vocational Exploration and Insight Kit; and the Missouri Occupational Preference Inventory. Generally, these card sorts are made up of a relatively large number (up to 100 or so) of three by five inch cards, which have occupational titles printed on them. It is the client's task to sort the cards into categories such as 'would not choose,' 'would choose,' and 'undecided' piles and then to reflect on these choices.

The origin of current vocational card sorts can be traced to a paper by Tyler (1960). Her research on the card sort she developed was supportive of the card sort approach as a reliable method for highlighting the uniqueness of individuals. She concluded that card sorts could be an important addition to more traditional psychometric approaches to measurement.

Card sorts have many positive features that make them useful as career counselling tools. The card sort process can be described as a structured interview technique that deals mainly with a client's reasons for making the choices, and it also permits observation of a person's approach to the task: fast or slow, decisive or hesitant, specific or vague, clear or cloudy, simple or complex, informed or uninformed about the world of work (Goldman, 1983). Card sorts demand a client's active participation in the assessment process as it is the client who produces the results as he or she goes along. Feedback is provided immediately and the lack of technology involved in manipulating the cards takes the mystery out of career decision-making. The process itself provides a logical and reasoned answer for the client; no claims are made for precision of measurement or for knowing something about a person that the person doesn't know, and they are also readily adaptable to almost any population (Goldman, 1982). Unlike the 'test and tell' approach offered by standardized tests, card sorts are valuable because they also require that counsellors become more involved in the career counselling process in a person-centred way (Slaney & Mackinnon-Slaney, 1990).

Slaney and Mackinnon-Slaney (1990) believe that card sorts are appropriate for a wide range of clients, including undecided clients, particularly those, such as university students, who do not yet have a good sense of identity and who have not yet had the opportunity to explore the world of work. Cognitively complex clients such as university students, who tend to be highly functioning and intelligent, benefit from the chance to sort out their ideas as this stimulates individual thinking and initiative. Overall, the research suggests that the effects on clients and participants in card sort intervention studies compares quite well with the effects of other widely used and

carefully developed instruments. However, there has been little actual research done on the vocational card sorts, and most of those studies did not involve counsellor administration.

Card sorts that have clients choose and prioritize values rather than occupations are also commonly used as a means to generate reflection and discussion. Similar to the vocational card sorts, the task is to sort cards with different value statements printed on them into categories that reflect the importance of each item to the client. As with the vocational sorts, the purpose of the values card sort is to discuss how the choices were made and how these play a part in career decision-making (Amundson, 1998).

Parker (2000) in her research on the ICCS, found the tactile aspect of physically working with the cards to be particularly favourable for people with a kinesthetic learning style. She received feedback from clients that they found the process more interesting than writing a career history or keeping a personal diary. She found that the use of the card sort was helpful in helping people develop their own narrative as it provided a guideline without imposing objective criteria. Individuals were encouraged to compose their own narrative account of their career, using the card items as platforms from which to explore and personalize their experiences. Thus, the researcher/educator does not impose his or her own ideas and the client is not left to come up with all of the ideas. Also, the cards may be arranged or re-arranged according to the subjective perspective of the individual concerned.

### The Group Approach to Career Exploration

The ICCS will be administered in a group setting rather than individually. It is important to recognize that group counselling has been well-documented to be effective with varied client populations facing many diverse problems (Amundson & Borgen, 1988). Borgen, Pollard, Amundson and Westwood (1989), in their book on employment groups, explain that group work provides clients with an efficient and secure environment in which to make career and employment decisions, master the skills required to find and keep a job and even find a new world of work.

There are three main types of groups: 1) psycho-educational, 2) therapy or process groups, and 3) a combination of these two. Career development groups tend to be of the psycho-educational type, designed to teach participants self-exploration and decision-making skills as well as to provide occupational information. These groups tend to be more highly structured than therapy groups, with the group facilitator leading participants through a series of pre-determined exercises and activities.

Kivlighan Jr. and Mullison (1988), in their study of university students who attended a counselling group for personal problems, found that there were three classes of factors that were important to the participants: cognitive (self-understanding, vicarious learning, guidance, universality), behavioural (self-disclosure, altruism, learning from interpersonal actions), and affective (acceptance, instillation of hope, catharsis).

There are, however, a relatively small number of empirical studies reported in the literature that shed light on the process in career exploration groups, but Dagley (1999) believes there is sufficient affirmative data to conclude that group career counselling

works. Likewise, Oliver and Spokane (1988) in their literature review and meta-analysis of career interventions found career counselling groups to be effective.

Johnson and Johnson (1981) conducted a six-month follow-up study on the effects of the vocational career exploration group with junior high school students and found that such a group can be an effective tool in the process of career development, in that students developed and maintained positive attitudes concerning active participation in the process of career education for six months. However, this study did not explore what the students found useful or how these gains were achieved and maintained.

Amundson and Borgen (1980) believe that groups are especially effective in career exploration, and they also pragmatically point out that groups represent an efficient use of the counsellor's time, an important factor for many university student centers, which have limited budgets and personnel. In their 1988 study, these authors emphasize that group approaches to career counselling are often positively received by participants because of the benefits of social interaction. This is echoed by Kivlighan Jr. (1990), who found that group members valued most highly the factors of catharsis, universality, cohesion, and instillation of hope. Interestingly, however, he found that leaders and researchers have focused almost exclusively on the factors of self-understanding, self-disclosure, and guidance, suggesting the need to conduct research that looks specifically at the experiences of group members.

Mawson and Kahn (1993) likewise found that women in career counselling groups appreciated the sense of universality, group discussion and support and the positive tone of the other members. Participants also acknowledged as important the cognitive aspects that were designed to enhance greater self-knowledge.

Borgen, Hatch and Amundson (1990) suggest that college and university counsellors can help prospective graduates by providing career information and suitable group or individual career counselling, and they call for more research on this topic.

### Summary

The existing literature suggests that more research on how university career counsellors can help students respond successfully to the new economy is warranted. University students benefit greatly when they learn about their own values and motivations for working, the skills they can use to implement their self-knowledge and how their relationships with others can help them connect to the world of work. Business management and counselling psychology offer complementary ways to think about career development. The integration of Intelligent Careers model with the card sort form of intervention implemented in a group setting provides a promising approach for assisting university students who seek career counselling. The ICCS exemplifies the holistic and subjective perspective of the Intelligent Careers model as it allows clients to reflect on what is important to them in terms of their values and identity, skills and abilities and relationships.

## METHOD

### Stance of the Researcher

As is typical of most qualitative studies, a phenomenological and constructivist approach will be taken. I believe that individuals construct their own versions of reality and will have unique reactions and interpretations. This research method is also consistent with the post-positivist and critical-realist perspectives, which value verbal reports but also expect that there is some form of reality that more than one person can recognize. The common form of reality in this instance will be the administration of the ICCS. I expect participants will have a variety of responses to it, some of which will be similar and some of which will differ. This view allows me to categorize the responses into thematic categories.

### Approach

The research objective, to learn about the experiences of university students who do the Intelligent Careers Card Sort™, will be best met by an exploratory and descriptive method.

The process of building a new understanding of career development must use as its starting point an exploration of people's experiences (Borgen & Amundson, 1990). One of the goals of qualitative research is the representation of the authentic voice of the participant. Most qualitative research strives to generate, elaborate or test theories from organizational and vocational psychology and formal hypotheses are typically absent. The use of a qualitative approach in researching career development is supported in the literature, especially as economic and social changes have altered the setting in which

career development occurs (Borgen & Amundson, 1990; Arthur, Inkson & Pringle, 1999). In fact, the increasing number of published articles that used qualitative methods indicates a growing recognition of the potential value to be gained from these techniques (Lee, Mitchell & Sablynski, 1999).

As the ICCS is a relatively new instrument, this study will be a preliminary evaluation and as such a qualitative method is warranted. This approach is also most beneficial to the participants, as it will allow them to tell their stories and freely give their opinions and input on the card sort. This input is extremely valuable, as it will allow for the modification of the card sort or the administration process to make it more useful and applicable for university students.

Qualitative research has four defining characteristics. First, qualitative research should occur in natural settings. Second, it should derive from the participants' perspectives. Third, it is reflexive, and qualitative designs can and should be readily changed to match the fluid and dynamic demands of the immediate research situation. Fourth, qualitative instrumentation, observation methods and modes of analyses are not standard. Qualitative research is well-suited for the purposes of description, interpretation and explanation, though it is not well-suited to issues of prevalence, generalizability and calibration (Lee, Mitchell & Sablynski, 1999). As a result, it has been shown to consist of a useful set of methods that fits nicely with some of the research questions asked by organizational and vocational psychologists.

### Focus Groups

Focus groups have been described as a form of qualitative research that can be used as the primary means of collecting data (Morgan, 1997). The use of focus groups in the social sciences dates back to the 1920s and they were used during World War II (Morgan, 1997). From about the 1950s to the 1980s, however, focus groups were not frequently used. During the last two decades they have been rediscovered as a qualitative means of gathering information both by social science researchers as well as marketers.

As Morgan (1997) notes, there are different applications for and forms of focus groups and he defines a focus group as, “a research technique that collects data through group interaction on a topic determined by the researcher. In essence, it is the researcher’s interest that provides the focus, whereas the data themselves come from the group interaction” (1997, p. 6). Carey and Smith (1994) define a focus group as “a semi-structured group session, moderated by a group leader, held in an informal setting, with the purpose of collecting information on a designated topic” (p. 124).

Systemic analysis of a group’s discussion provides data as to how a particular service or policy is perceived. This recognition of different perceptions is important as it rests on the fundamental assumption that the world consists of multiple realities that interact with and play off one another. Focus group interviews are expressly designed to elicit multiple perspectives (Brotherson & Goldstein, 1992).

The intent of focus groups is not to generate or test universal laws or generalizations but to provide useful information specific to particular categories of programs, policies and/or people. Qualitative research is best able to assess a practice or policy in local or

specific contexts, accounting for controlled as well as uncontrolled conditions, personal characteristics and circumstances. It is important to provide enough contextual information for readers to understand the focus group data in its own context and to compare or transfer the findings to other contexts (Brotherson & Goldstein, 1992). This should include data about focus group participants and the structure and dynamics of the groups, and also detailed information about the programs under discussion by the groups. From the focus groups themselves accurate and detailed data come from three sources: verbatim transcripts of the interviews, interactional observations noted during the groups, and descriptive data about the participants (Brotherson & Goldstein, 1992).

Focus groups are best suited for exploratory studies in which a researcher is interested in learning more about a specific phenomenon. A researcher can obtain background information from respondents that can help clarify variables and relationships between concepts. This new information may facilitate the development of research instruments and be of assistance in establishing the validity of instruments as well as to identify and diagnose potential or actual problems with new products or programs. Focus groups can also be used to stimulate new ideas and concepts as creativity and synergy are a natural outcome of group process and can help identify new ideas that can be used for future research (Gray-Vickrey, 1993). Focus groups are especially well-suited to situations in which there is an experiential gap between professionals and their target audience (Morgan, 1993).

A number of 'rules of thumb' have evolved over the years for focus groups. These are that focus groups most often a) use homogenous strangers as participants, b) rely on a relatively structured interview with high moderator involvement c) have 6 to 10

participants per group, and d) have a total of three to five groups per project (Morgan, 1997, p. 34). These rules, however, are viewed more as a starting point for the planning process than as rigid laws.

The main advantage of focus groups in comparison to participant observation is the opportunity to observe a large amount of interaction on a topic in a limited amount of time. Because they are guided by the researcher's interest, focus groups can produce concentrated amounts of data on the topic of interest. In a group setting, participants can respond to a question, listen to what others say, and then add to the original statement. Participants have an opportunity to validate information given by others, to agree or to disagree. Ideally, focus groups provide a safe environment for participants to share their thoughts and feelings without fear of criticism. Participants in focus groups often pose their own questions, which helps to draw out more information (Gray-Vickrey, 1993).

The main advantage of focus groups over individual interviews is their efficiency, as they can be used to gather larger amounts of data from a relatively larger number of participants. They also allow the researcher to observe interaction on a topic, thereby providing direct evidence of the differences and similarities in participants' opinions. However, focus groups require greater attention to the role of the moderator and provide less depth and detail about the opinions and experiences of any given participant (Morgan, 1997).

Also, as Morgan (1997) notes, group discussions make it easier to conduct less structured interviews in which the interview guide or questionnaire is briefer and more flexible or even absent. The ability to give the group control over the direction of the

interview is especially useful in exploratory research in which the researcher may not initially even know what questions to ask.

Morgan (1997) discusses the potential differences in the behaviour of people in group settings as opposed to individual interviews. However, very little research that compares individual and group interviews has been conducted. The topic that is being researched in this case, the Intelligent Career Card Sort™, is one that lends itself to focus group research. Although the ICCS was developed initially to be used with individuals, it has successfully been used in group settings. Also, participants will remain in the same groups during both the administration of the card sort and during the focus groups, so their behaviour in terms of group dynamics should remain consistent. Participants are able to compare each other's experiences and opinions and so produce valuable insights and creative new ideas. The group interaction itself, however, may influence how and what individuals will contribute.

One of the drawbacks of focus groups is that the moderator/researcher will influence the group's interactions. However, there is no hard evidence that the group moderator's impact on the data is any greater than the researcher's impact in participant observation or individual interviewing (Morgan, 1997). The researcher does need to be skilled in group processes. As a Masters student in Counselling Psychology, I have completed clinical work, which includes the co-facilitation of several career development groups as well as course work, in group counselling.

This study used focus groups as the primary means of gathering data. Focus groups whose results can stand on their own are termed 'self-contained' focus groups by Morgan. The goal of these types of groups is to learn about participants' attitudes and

opinions on the researcher's topic of interest, as well as participants' experiences and perspectives.

### Procedure

This study was completed in two phases, both of which took place in one of two large rooms in Counselling Services that are used for group meetings. During the first phase I administered the ICCS to students in each of the six Career Development Groups offered at Counselling Services during the Fall semester. The groups are co-facilitated by staff counsellors and doctoral interns or master's students under supervision. These co-facilitators left the room during the second hour of the group, at which point I assumed facilitation of the group. I introduced the ICCS and myself and asked the participants to read and sign consent forms (Appendix 1). The consent form informed students that the ICCS was being implemented in Career Development Groups at Counselling Services for the first time for research purposes and it was accompanied by an invitation to attend the focus group interview during the last session, which I also facilitated. Once this had been done, I briefly described the ICCS and the Intelligent Careers theory using the information on the first page of the Participants' Package (Appendix 2) which each of the students received. I then gave each student a set of cards and explained and demonstrated the card sorting procedure. At this point the participants proceeded to sort the cards. Parker's (2000) field-testing of the sort showed that people typically took up to 45 minutes to complete the full sort. Therefore, I allowed approximately 5 minutes to describe the study and the card sorting process, 40-45 minutes for students to sort the cards and about 10-15 minutes for group discussion.

As students progressed in sorting their cards, they marked their results in the Participants' package (Appendix 2). Students kept the Participant Package so that they will have a record of their choices and their reflections for use in future decision-making.

Each card has a code number on the reverse side to make recording of results simpler for the participant. After students completed the card sort they recorded their results on a data-recording sheet (Appendix 4), which also included a brief demographic questionnaire, that I provided. I collected these at the end of the session. Once the students completed sorting the cards, I facilitated a group discussion about the results they obtained. The point of this discussion was not to ask students their opinions on the ICCS as an instrument, but to have them reflect on the choices they made and what these choices meant to them as per the standard instructions of the ICCS administration (Arthur & Parker, 1997).

The second phase of the research took place after the fourth and final session of the Career Development Groups, which occurred three weeks after the administration of the ICCS. The co-facilitators of the groups ended their sessions about half an hour early and left the room, at which point I entered the room to conduct the focus group interviews. I re-introduced my research project and myself and asked participants to read and sign an informed consent form (Appendix 3). I then turned on the audio-tape recorder and began the interview, using an interview guide.

### Interview Questions

The number of questions that can be asked is limited, usually not more than 10 (Gray-Vickrey, 1993). One of the most consistent threads in focus group literature is the vital importance of using nondirective questions to elicit spontaneous expression among participants (Kidd & Parshall, 2000; Morgan, 1993). This allows the moderator to improvise comments and questions within the framework set by the guiding questions (Morgan, 1993). The interview guide which appears here was not developed until after I began administering the ICCS and had completed the first focus group interview, meaning that the questions emerged from the participants themselves. This process will be described further in the Results section. The Moderator's Guide that I constructed for use during focus group interviews was finalized before the groups began. Both the Moderator's Guide and Interview Guide are shown below:

### Moderator's Guide

#### Introduction (to be read before beginning the interview)

Thank you for staying behind for this interview. As you may remember from our first meeting during your first group session, my name is Susan and I'm a Master's student in Counselling Psychology. I'm using the information from the Intelligent Careers Card Sort for my Thesis.

I'll be asking you questions about the Intelligent Careers Card Sort™, which you did in the first session. I'd like to hear your thoughts and opinions on it in

terms of its usefulness for your career development, so feel free to point out things you liked and didn't like about it.

Before we begin, I'd like you to know that this is strictly a research project. I am audio-taping this session so that I can have a record of what was said to work from later on, but everything that is said will be kept completely confidential. No one else will hear the tapes, and although we'll be on a first name basis for the purpose of this interview, your names will not appear in any of my written work. Also, the tapes will be erased once my project is finished.

I'd appreciate it if everyone would participate, and we'll take turns speaking.

This session will last about half an hour, and please feel free to help yourself to the snacks here as we go along. Are there any questions before we begin?

Please read and sign the consent forms.

### Interview Guide

1. Please think back to your first session in which I led you through the Intelligent Careers Card Sort™.
2. What were the things you liked and didn't like about it?

Prompts:

- a. What did you think about the amount of time we had?
- b. What did you think about the colour scheme?
- c. What was your favourite and least favourite colour and why?

- d. What did you think about the Package?
  - e. Would you recommend the card sort to a friend?
  - f. What did you think about the card sort format?
3. Now that you've completed all the career group sessions and can look back over the sessions, what are your thoughts about how the card sort fit into the career group as a whole?

Prompts:

- a. What do you think about ICCS being introduced in the first session?
  - b. How does the ICCS compare to other group exercises you did?
4. Summary of main points and summarizing question/comment as member check
5. All things considered, what sticks out most in your mind about the card sort?
6. Does anyone have anything to add? Have we missed anything?

### Setting

All of the research took place at the University of British Columbia's Counselling Services. UBC is located in Vancouver, BC, and is Canada's third largest University with a population of approximately 30 000 students. Counselling Services shares a building with the Registrar's office, on-campus housing and financial aid offices, the Women Students Office and several other student service organizations and offers free personal and career counselling to UBC students, faculty and staff. Counselling Services employs five counsellors, three of whom are psychologists and two of whom are in the process of completing their doctorates. Counselling Services also serves as a training centre, with two doctoral and five masters interns under supervision providing individual and group counselling services. In addition, the Department of Educational and Counselling Psychology and Special Education at UBC runs a clinic team composed of eight students at various level of training from masters to doctorate who

receive supervised training one day a week at Counselling Services. Counselling Services has an extensive library of both hard copy (books and pamphlets) and electronic (computer resources, audio and video tape) career and personal counselling materials that are available to UBC students.

This study was implemented in the context of the Career Development Groups, which are run by counsellors and trainees at Counselling Services. These groups are run year-round but are concentrated in the Fall and Winter semesters, with about six groups scheduled on different week days and times of the day. Participants are UBC students who register for the groups to clarify and explore their career options. The groups consist of a maximum of eight members and are scheduled over five, two-hour, once a week sessions. The Career Development Groups are highly structured, following a predominantly psycho-educational format, and homework is usually assigned at the end of each session.

The initial session is dedicated to the writing of the Strong Interest Inventory by group members. No other group activities are planned for this session. The remaining four sessions include a variety of group and individual exercises designed to help participants explore their skills, values and interests, to identify and research specific careers and to learn decision making strategies. During the first session (one week after the writing of the Strong Interest Inventory) the facilitators introduce themselves and outline the group. The participants introduce themselves and their goals for participating in the group, and the remainder of the session is composed of a variety of exercises, including a values card sort and a discussion of the students' favourite activities, to explore values. The Kiersey-Bates Personality Indicator is assigned for

homework at the end of this session. The ICCS was administered during this first session instead of the values card sort in each of six Career Development Groups offered from September to December. The focus of the second session is on transferable skills and abilities. These are elicited through a skills card sort and pencil and paper exercises to help participants reflect on and identify skills developed through previous life experience. The Kiersey-Bates and other homework assignments are debriefed during this session. During the third session the participants receive the results of the Strong Interest Inventory and about half the session is spent discussing the results, what they mean and how they can be used. The facilitators explain the meaning of Holland's six occupational preferences that are the basis of the SII before the results are distributed. The facilitators give the participants a tour of Counselling Services' career library and participants complete an occupational card sort. During the fourth session the focus is on decision-making skills to help students integrate the information they have received thus far. Information packages on labour markets and careers, including Internet resources, are handed out, and participants compose lists of the occupational titles they find most appealing. The factors that contribute to career decision-making are discussed and strategies for dealing with these are explained. Finally, each participant completes an anonymous Career Development Group evaluation sheet that provides valuable information to Counselling Services about students' experiences in the group. Student feedback on these evaluations has been very positive overall.

By introducing the ICCS in this pre-existing setting and conducting the focus group interviews here, I will have satisfied Morgan's (1997) criteria that focus groups should be conducted in a natural setting.

### Participant Sampling

One of the most important issues when designing focus group research is the selection of participants. Because the researcher is interested in hearing what the individuals most affected by a particular product, service or experience have to say, those individuals who are best able to provide this information are naturally the desired participants. Purposive sampling is used; that is, participants are chosen because they are experienced and knowledgeable in the subject under study. The emphasis in sampling is on minimizing bias rather than on achieving generalizability. Because a focus group is usually a one time happening, rapport is most quickly established when participants have things in common (Brotherson & Goldstein, 1992).

Debate has centred on whether or not focus group participants should know each other, with some writers thinking that strangers should compose focus groups, not acquaintances. The participants in this study knew each other from their previous meetings for the Career Development Group. Krueger (1995), Morgan (1997) and Morgan and Krueger (1993) write that the belief that focus group participants should be strangers is a myth and that focus groups composed of people who know each other have been successful. Morgan (1997) believes the most important criterion is whether a particular group of participants can comfortably discuss the topic in ways that are useful to the researcher. The participants discussed a career exploration instrument, a topic

that I did not expect to arouse a great deal of emotion or conflict, and in fact it did not. My expectation that these focus groups would be able to provide useful information was met. Also, it is important that participants be equals so that they feel less inhibited. For example, a focus group that is composed of supervisors and their supervisees is not as likely to encourage honesty on the part of the supervisees as a group composed solely of supervisees would be.

The focus group participants in this study were university students in Career Development Groups at UBC who volunteered for participation in this study. Participants were notified of the study through informed consent forms (Appendix 1), which they read and signed before the ICCS was administered. This form notified participants that the ICCS was being implemented into Career Development Groups for the first time for research purposes and it invited them to participate in focus group interviews after the last session of the group. The consent form allowed students the choice of whether or not to hand in their card sort results for this research project.

### Description of Instruments

The instruments that were used in this study were the Intelligent Careers Card Sort™ and a demographic questionnaire. The questionnaire served to provide more detailed information about the participants.

The ICCS is composed of 111 cards which are subdivided into 3 differently colour-coded sections (blue, yellow and green) of approximately 40 cards, each of which represents the three competencies of 'knowing-whom' (green cards), 'knowing-why' (blue cards), and 'knowing-how' (yellow cards). The Intelligent Careers Card Sort™

was developed through a research project conducted by Parker in 1995 (Parker, 1996). It was developed specifically to elicit the subjective career using the concepts of the Intelligent Career (Arthur et al., 1995). On completion of Parker's (1996) project, a comprehensive literature review was conducted to refine the card sort with a view to increasing its applicability to a wider range of participants than the convenience sample of MBAs with whom it was originally developed. Additional items were added from a review of related literature, from a study of over 200 jobs across the workforce at large, and from experience in career consultations using the cards. The ICCS was then field-tested, a process that is on going. By the end of 1997, 352 card sort applications had been administered and the results collated (Parker, 2000). The range of items allows for a broad exploration of a client's career situation while the process of card selection allows for people's uniqueness to be highlighted in the choices made (Arthur & Parker, 1997).

Unlike traditional vocational card sorts, the ICCS does not contain titles of occupations. Rather, it contains statements that the client sorts into piles depending on whether that statement reflects their current career behaviour and beliefs or not. The knowing-why cards reflect personality traits, values, personal and family situations and the influence of people's past or present work experiences. The knowing-how cards explore the steps a person is taking to gain technical/professional skill and expertise. The knowing-whom cards describe friendship, support systems, and relationships with mentors and personal networks involving work relationships.

On the reverse side of each card is a code number, which simplifies the process of collecting results from clients. That is, rather than writing out the entire statement, a

participant need only record the code number. The knowing-why cards are numbered A1-A40; the knowing-how cards are coded B1-B35, and the knowing-whom cards are coded C1-C35. Although clients are instructed to write the entire card statement for their own records, they need only write the code number for research purposes as the researcher can then match each code number to its corresponding item statement.

Clients are instructed to select and rank seven cards from each subsection and to note these in the provided Participant package (Appendix 2), which provides space for clients to note their thoughts about the card items they selected. This provides the basis for a discussion between the client and counsellor if the ICCS is being administered individually, or between group members if it is being administered in a group setting, about the items and why they were chosen (Arthur & Parker, 1997). Once the sorting is complete, the client will have another perspective on the type of occupation that suits them, and they will also have an idea of how well developed their career competencies are. For example, they may find that they lack a clearly developed sense of the values that have led them to a certain career or academic choice, or they may find that even though they are interested in a certain occupation they do not know how to go about forming key relationships.

#### The Intelligent Careers Card Sort™ Administration

There are two parts to the ICCS administration process. The first is the sorting itself, and the second is the reflection on and discussion of card choices. The standard instructions (Arthur & Parker, 1997) that have been developed are for participants to take one set at a time and identify cards that best reflect their current career situation

under each of the knowing-why, knowing-how and knowing-whom categories. Participants are asked to read each card item and initially place it in a 'yes', 'no', or 'maybe' pile depending on whether or not they feel that card reflects their current career behaviour. This represents a continuum along which participants distribute their responses and resembles data collection principles of Q-technique (Parker, 2000). Since the ICCS in this instance was administered to university students who typically lack work experience, they were instructed to project themselves into the future and ask themselves how important they would consider each card statement to be.

Once the participants have their three piles, they are instructed to focus on the 'yes' pile and continue dividing it until they have the seven cards that they feel are the most important. If clients do not have enough cards in the 'yes' pile they are instructed to evaluate those in the 'maybe' pile. They are then asked to rank these in order of importance. The process is repeated for all of the three card sort subsets.

Once the sorting is complete participants reflect on the choices they made with the help of the Participant's package (Appendix 2), which provides room for participants to write down and reflect on their choices. The package also includes questions to stimulate reflection. The participant then discusses his or her choices with a counsellor if in an individual counselling session or with fellow group members and facilitators in a counselling group.

### Analysis

In the literature on focus groups, far more attention has been devoted to how groups are organized and moderated than to how they are analyzed (Krueger, 1995; Frey &

Fontana, 1993; Kidd & Parshall, 2000). As Krueger (1995) notes, analysis has been a headache for many focus group researchers as it is time consuming, tedious and difficult. There is very little guidance in the literature with respect to how differences between group and individual dialogue impacts the analysis and interpretation of focus group data even though it is known that individuals in groups do not speak and answer questions the same way that they do in other settings. Within any focus groups, the discussion depends on moderator skill as well as on the participants' characteristics and their emotional stake in the topic, and agreements or disagreements will influence the nature and content of responses as the group progresses (Kidd & Parshall, 2000).

Plans for analysis should begin by going back to the intent of the study (Krueger, 1988) and can range from the identification of broad concepts to a very detailed analysis of transcripts. The true start of the analytical process in qualitative research begins when the study purpose is formulated. The perceptions, opinions, beliefs and attitudes collected in focus groups are subjective (Henderson, 1995), meaning that focus group data cannot be appropriately lifted out of context. For this reason, it is important to do member checks during the focus group itself in which the moderator reflects the participants' comments back to the group to establish the extent of agreement. To capture the richness that a transcript cannot convey, it is important to record field notes immediately after a focus group interview (Carey & Smith, 1994).

There is controversy about whether the individual or the group is the unit of analysis (Kidd & Parshall, 2000). Kidd and Parshall (2000) suggest that neither one is a unit of analysis, but that both can be the focus of analysis. A major aim of analysis is to identify areas of agreement and controversy to better understand how perspectives arise

and are modified in a group. An important issue is gauging whether an issue constitutes a theme for the group or merely a strongly held viewpoint of one or a few members.

Other issues include whether an issue comes up in only one of a few groups and whether the issues are raised by the group or are stimulated by the moderator (Kidd & Parshall, 2000).

The hands on tools used for recording and interpreting data include moderator notes written within 24 hours of the focus group, audiotapes and transcripts of the sessions. Each of these was used for this study.

To adequately interpret data, the following skills are needed: the ability to organize disparate information into categories; the ability to detach one's self from findings to report negative as well as positive findings; crisp writing skills and good layout and formatting procedures so that results are easy to read and understand (Kidd & Parshall, 2000).

There are two basic parts to analysis: a mechanical one and an interpretive one. The mechanical part involves physically organizing and subdividing the data into meaningful segment, whether manually or using a word processor. The interpretive part involves determining criteria for organizing the textual data into analytically useful subdivision, or in other words, coding the data, and the subsequent search for patterns within and between these subdivisions to draw meaningful conclusions (Knodel, 1993).

For the purposes of this study, I used the data analysis procedure described by Vaughn, Schumm and Sinagub (1996) because it is practical and parsimonious. Step one is 'identifying the big ideas' or recognizing major themes, and it occurs during and immediately after the focus group. Step two is 'unitizing the data' and refers to the

process of dividing the contents of the transcripts into units of data. These will then be used as the basis for defining categories. A unit of data is aimed at assisting the researcher to better understand the topic, which means that if it does not inform the research question it is not included. A unit should be the smallest amount of information that is informative by itself, and can range in size from a sentence to a paragraph. Finally, a unit should be a direct participant quote. Step three is the sorting of similar units into thematic categories. Rules or criteria to describe category properties are defined at this step to serve as a basis for inter-rater reliability. Step four is 'negotiating categories' and involves two analysts working together to firm the categories and the units within them. For the purposes of this study this step was not included as I am the sole researcher and analyst. The final step is 'identifying themes and use of theory'. This step revisits the ideas generated in step one to see if the big ideas are supported by the categories developed. This information can then be used to refine thematic categories. Theory is used to assist in interpreting categories and findings.

### Rigour

Credibility asks about the match between the constructed realities of the focus group participants and those realities as represented by the researcher and attributed to the participants. Brotherson and Goldstein (1992) pose two questions that emerge from the inquiry into credibility: How do we assure that the data are firmly rooted in the participants' perceptions and not the biases and perceptions of the investigator? And, how do we check our accurate understand of participant perspectives? They propose

several techniques to ensure credibility such as the keeping of field notes, which I recorded during the initial ICCS administration as well as during focus group interviews. These notes documented participants' comments and were compared to audio-tape transcripts for consistency. Member checks were also used during focus groups: when data, definitions, interpretations, hypotheses and preliminary analytic categories emerged from the focus groups, they were presented back to the participants for comment, affirmation or elaboration. This allowed participants the opportunity to clarify or modify their initial comments (Brotherson & Goldstein, 1992).

Another issue is the maintenance of stability and consistency of data while reorganizing the question schedule stemming from insights on the part of participants and researchers. Brotherson and Goldstein (1992) recommend peer debriefing, or discussion with a colleague not directly involved in the research, to test ideas and analysis.

This study is expected to show test-retest reliability, in that if other researchers were to undertake a similarly designed study they would yield similar results. The validity of what was measured, the participants' reactions to the card sort, is dependent on the openness of the interviewees and how well I was able to elicit their experiences. In-person interviews offer many advantages as described by Palys (1997) such as higher rates of participation as well as a higher quality of responses. Lee, Mitchell and Sablynski (1999) suggest that qualitative researchers in vocational and organizational psychology include a description of method that is sufficiently detailed to allow a reader to replicate the study either in a detailed hypothetical or actual manner.

Morgan (1993) also attacks the myth that focus group data must be validated with other methods, explaining that when the research project involves understanding the success or failure of a particular program in a specific setting, focus groups may well be the most efficient and effective tool for uncovering reasons behind the outcome.

### Implications of Study

This study of university students' experiences with the Intelligent Careers Card Sort™ can benefit theory and practice in this field. It contributes to student career development theory by expanding on the current understanding of the instruments that are useful with this population. It adds to the limited research on card sorts, especially as it gives voice to the experiences of participants. It provides information on a new instrument that is based on an understanding of the demands of the new economic context. This data can therefore be used to further refine the card sort.

This research can benefit career practitioners at university counselling centers by providing information on how to approach career counselling with university students who must face the new economy. As the Intelligent Careers Card Sort™ was found to be useful by university students, it may find wider usage among university career counsellors and counselling centres. Finally, and perhaps most importantly, students might benefit from this wider usage by being better prepared to confront life after graduation, whether this means facing the challenges of life outside of university, pursuing graduate work, or changing their course of study.

## RESULTS

### Overview

This study asked about the experience of university students who completed the Intelligent Careers Card Sort™. Specifically, I wanted to learn what they did and did not find useful about it and why. Secondly, I was curious to know what choices the students made. This section will describe the answers to both questions.

Each focus group interview was audio-taped and lasted approximately half an hour (the range was 25-35 minutes). The groups were small, with two to five participants in each group. Field notes were taken during administration of the card sort and during the interview and were compared with transcripts for consistency and to begin the formation of themes. Transcripts were broken down into units of data and these were grouped into thematic categories. To formulate categories, contents were analyzed for units of data across all groups. Data units were then sorted into themes based on criteria that emerged from the research question and from the data itself.

### Participant Demographics

Detailed demographic information was collected via questionnaire of all students who completed the ICCS. The compiled results of these questionnaires follow.

Table 1: Demographic Information for Students who Completed the ICCS

| P# | Age | Gender | ES     | Program and Year                          | MS         | PS           | Previous Service                       |
|----|-----|--------|--------|---|------------|--------------|--|
| 1  | 31  | F      | F/T    | Nursing, M.Sc. 3                          | Married    | Not a parent | No                                     |
| 2  | 46  | F      | F/T    | Psychology, Grad 2                        | Married    | Mother       | No                                     |
| 3  | 32  | F      | F/T    | English, B.A. 2                           | Common Law | Not a parent | No                                     |
| 4  | 20  | F      | F/T    | Genetics/Cell Biology, B.Sc. 3            | Single     | Not a parent | No                                     |
| 5  | 21  | F      | F/T    | Biology, B.Sc. 4                          | Single     | Not a parent | No                                     |
| 6  | 19  | F      | F/T    | Political Science/Sociology, B.A. 2       | Single     | Not a parent | Yes - Personal Counselling & Workshops |
| 7  | 19  | F      | F/T    | Science, B.Sc. 2                          | Single     | Not a parent | No                                     |
| 8  | 53  | F      | F/T    | Law, Year not given                       | Divorced   | Mother       | Yes – Personal Counselling             |
| 9  | 22  | F      | F/T    | Anthropology, B.A. 4                      | Single     | Not a parent | Yes – Personal Counseling              |
| 10 | 27  | F      | F/T    | Statistics, Grad 2                        | Single     | Not a parent | Yes – Personal Counselling             |
| 11 | 30  | F      | F/T    | Counselling Psychology, M.A. 2            | Common Law | Not a parent | No                                     |
| 12 | 23  | M      | F/T    | Religious Studies, B.A. 4                 | Single     | Not a parent | Yes – Personal Counselling             |
| 13 | 25  | F      | Alumni | Political Science/English Literature B.A. | Single     | Not a parent | Yes – Personal Counselling             |
| 14 | 17  | M      | F/T    | Undeclared Undergraduate, 1               | Single     | Not a parent | No                                     |
| 15 | 19  | F      | F/T    | English, B.A. 2                           | Single     | Not a parent | No                                     |
| 16 | 31  | M      | F/T    | Finance, Ph.D. 2                          | Married    | Not a parent | No                                     |
| 17 | 20  | F      | F/T    | Forestry, B.Sc. 1                         | Single     | Not a parent | No                                     |
| 18 | 22  | F      | F/T    | Undeclared undergraduate, Year not given  | Single     | Not a parent | Yes – Personal Counselling             |
| 19 | 21  | M      | F/T    | Arts, B.A. 2                              | Single     | Not a        | No                                     |

| P# | Age | Gender | ES     | Program and Year            | MS         | PS           | Previous Service           |
|----|-----|--------|--------|-----------------------------|------------|--------------|----------------------------|
|    |     |        |        |                             |            | parent       |                            |
| 20 | 17  | F      | F/T    | Undeclared undergraduate, 1 | Single     | Not a parent | Yes – Personal Counselling |
| 21 | 20  | F      | F/T    | Math, B.A. 3                | Single     | Mother       | Yes – Personal Counselling |
| 22 | 19  | F      | F/T    | Applied Science, B.Sc. 2    | Single     | Not a parent | Yes – Personal Counselling |
| 23 | 19  | M      | P/T    | Science, B.Sc. 2            | Single     | Not a parent | Yes – Personal Counselling |
| 24 | 37  | F      | F/T    | English, B.A. 3             | Divorced   | Mother       | No                         |
| 25 | 44  | M      | F/T    | Counselling Psych, Ph.D. 5  | Divorced   | Not a parent | No                         |
| 26 | 38  | F      | F/T    | Counselling Psych M.A. 2    | Common Law | Not a parent | No                         |
| 27 | 23  | F      | Alumni | English/Music, B.A.         | Single     | Not a parent | No                         |
| 28 | 20  | F      | F/T    | Commerce, B.Com. 3          | Single     | Not a parent | No                         |

**P#**=Participant Number (students were assigned an arbitrary number during data analysis)

**ES**=Educational Status (full or part-time registration)

**MS**=Marital Status

**PS**=Parental Status

**Previous Service**=indicates whether or not a client has previously used Counselling Services

This information can be condensed as follows:

Table 2: Demographic Summary of Students who Completed the ICCS

| Category                | Number of Participants |
|-------------------------|------------------------|
| Age Range               | 17-53                  |
| Median Age              | 26                     |
| Females                 | 22                     |
| Males                   | 6                      |
| Undergraduate Students  | 20                     |
| Graduate Students       | 8                      |
| Full-Time Students      | 25                     |
| Part-Time Students      | 1                      |
| Alumni                  | 2                      |
| Previous Use of Service | 10                     |

### Career Development Group Composition

Students were grouped into six Career Development Groups as detailed below. The groups follow each other chronologically, so that, for example, group 4 started and ended several weeks after group 1. The participants described in Table 1 were divided into the six Career Development Groups as shown below.

Table 3: Participant Number According to Group

| <b>Participant Numbers</b> | <b>Career Development Group Number</b> |
|----------------------------|--|
| 1-6                        | 1                                      |
| 7-12                       | 2                                      |
| 13-15                      | 3                                      |
| 16-21                      | 4                                      |
| 22-24                      | 5                                      |
| 25-28                      | 6                                      |

### ICCS Administration Results

Students' card choices were compiled and have been composed to show the most common card ranking for each of the three competencies. These have been compiled into tables that follow this section. The results that Parker (1996) obtained, which are the outcome of 352 ICCS administrations, follow for purposes of comparison.

Please note that for each of the following three tables Frequency (Fr) refers to the times an item was chosen while the Participation Rate (PR) was obtained by dividing to the frequency by the total number of responses to obtain a percentage. I obtained a 100% response rate on each summary sheet (Appendix 4), which means that the total number of responses is equal to the number of participants, or 28.

Table 4a: Most Common Ranking of Blue (Knowing-Why) Items

| Rank | Item  | Fr | PR  |
|------|---|----|-----|
| 1    | I like to gain a sense of achievement from my work  | 8  | 29% |
| 2    | I want to be challenged in my work  | 4  | 14% |
| 3    | I like to be recognized and admired for my work   | 3  | 11% |
| 4    | I want to maintain employment security<br>I want to maintain financial security<br>I want to be challenged in my work<br>I like to experience a sense of artistry through my work | 3  | 11% |

Table 4b: Most Common Ranking of Blue (Knowing-Why) Items, Parker (1996)

| Rank | Item   |
|------|--|
| 1    | I like to gain a sense of achievement from my work |
| 2    | I want to be challenged in my work                 |
| 3    | I want to maintain financial security              |
| 4    | I enjoy being a member of a high performing team   |

Table 5a: Most Common Ranking of Yellow (Knowing-How) Items

| Rank | Item  | Fr | PR  |
|------|---|----|-----|
| 1    | I enjoy working with people from whom I can learn   | 7  | 25% |
| 2    | I enjoy working in job situations from which I can learn  | 5  | 18% |
| 3    | I pursue qualifications and skills that make me distinctive<br>I enjoy working in job situations from which I can learn<br>I am developing knowledge about my own abilities | 3  | 11% |
| 4    | I seek to become more adaptable to different situations   | 5  | 18% |

Table 5b: Most Common Ranking of Yellow (Knowing-How) Items, Parker (1996)

| Rank | Item   |
|------|--|
| 1    | I enjoy working with people from whom I can learn        |
| 2    | I enjoy working in job situations from which I can learn |
| 3    | I seek to improve my range of business skills            |
| 4    | I am open to fresh ideas                                 |

Table 6a: Most Common Ranking of Green (Knowing-Whom) Items

| <b>Rank</b> | <b>Item</b>  | <b>Fr</b> | <b>PR</b> |
|-------------|--|-----------|-----------|
| 1           | I develop and maintain relationships with family   | 11        | 39%       |
| 2           | I spend time with people from whom I can learn   | 6         | 21%       |
| 3           | I spend time with people from whom I can learn   | 4         | 14%       |
| 4           | I spend time with people from whom I can learn<br>I cultivate relationships with professional colleagues | 3         | 11%       |

Table 6b: Most Common Ranking of Green (Knowing-Whom) Items, Parker (1996)

| <b>Rank</b> | <b>Item</b>                                      |
|-------------|--|
| 1           | I develop and maintain relationships with family |
| 2           | I spend time with people from whom I can learn   |
| 3           | I maintain relationships to keep old friends     |
| 4           | I work with teams from whom I can learn          |

As can be seen from comparing these results, there are some differences in item rankings between Parker's participants and that of the participants in this study. The top two rankings for each competency category are the same while the remaining rankings are different. I had expected there to be differences in the choices between this sample and Parker's (1996) due to the characteristics of the samples. That is, there weren't any university students in Parker's sample, and the sample in this study is predominantly female and is composed of full-time undergraduate students, whose choices would likely be different from those of part-time graduate students. Individuals who have been working for several years, such as those in Parker's sample, can be expected to have had different expectations and experiences from university students, and these are reflected in the item rankings. Also, the sample in this study is significantly smaller than Parker's, which may also have had an influence in the final results. It is interesting to note, however, that despite the differences between the samples, they made similar

choices. This was an unexpected finding and it is not the purpose of the present study to explain this, but this may be a useful direction for further research.

### Composition of Focus Groups

Not all students who completed the ICCS were present at the focus group interviews. It is typical for students to drop out as Career Development Groups progress, especially between the third and fourth groups. This has been attributed to the fact that in the third session the results of the Strong Interest Inventory are interpreted and some students do not return once they have these results. The composition of the students, by number and gender, who participated in the focus groups is shown below. The difference in number between the ICCS administration session and the focus group interviews is eight students.

Table 7: Composition of Focus Groups

| <b>Group #</b> | <b>Males</b> | <b>Females</b> | <b>Total</b> |
|----------------|--------------|----------------|--------------|
| 1              | 0            | 4              | 4            |
| 2              | 1            | 4              | 5            |
| 3              | 1            | 2              | 3            |
| 4              | 0            | 2              | 2            |
| 5              | 2            | 2              | 4            |
| 6              | 0            | 2              | 2            |
| <b>Total:</b>  | <b>4</b>     | <b>16</b>      | <b>20</b>    |

### Thematic Categories

Once transcripts were broken down into data units, I began refining categories that I had begun to formulate during earlier stages of the research. These initial categories included 'Time', 'Wording' and 'Opinions about the Three Competency Categories',

which remained in the final analysis. Thematic categories emerged from the participants themselves as the questions I asked were based on comments made by participants. In other words, the questions came from the research data. I did not impose them at the outset of this project. The only question I formulated prior to my administrations of the card sort was the first one that appears in the Interview Guide: “What were the things you liked and didn’t like about it?” which is based on the question which is the motivation for this entire research project and which appears in the title.

I took field notes during each card sort administration session, and these notes provided the basis for the prompts in the Interview Guide. Although the purpose of the 15-minute debriefing session at the end of each card sort administration was to help students articulate for themselves the meaning of their card sort choices, they also spontaneously commented about the card sort. I did not ask them for this feedback at this point. Nevertheless, many groups mentioned that they felt rushed for time and that they learned the most from the knowing-whom competency cards. With this knowledge I was able to construct more specific questions and prompts to follow up on these comments several weeks later. This process continued until after the first focus group, during which time I was able to test the questions and prompts to see if they were applicable to the students’ experience. All the questions in the final Interview Guide appeared to resonate with students as these questions stimulated discussion.

It is clear from reading the Interview Guide that there is a direct relationship between the questions and thematic categories. The questions were on specific aspects of the ICCS and the answers provided data on those specific features, so the questions in the Interview Guide contain the genesis of themes. Questions such as “What did you

think about the amount of time we had?” and “What did you think about the colour scheme?” are directly linked to the thematic categories that result. The process of formulating questions and categories can be seen as the following: (1) data from participants, (2) formulation of questions, (3) test to see if questions resonate with participants by using them in the first focus group interview, and (4) construction of thematic categories.

To facilitate the construction of categories, I generated a computer print-out of data units and cut them apart. I then began to sort the slips of paper into piles according to common themes, and those data units that appeared to be similar were put into envelopes on which I wrote initial category titles. I undertook this process several times until I was satisfied that the sorting was accurate and defensible.

As the purpose of this thesis is to uncover the positive and negative factors of the ICCS as identified by university students, I have arranged the thematic categories to reflect this purpose by assigning each data unit to either a positive or negative column. It is important to note that the positive and negative designations themselves contain a range of responses, some strongly positive or strongly negative, and others that are relatively less positive or negative. To make the data clearer and more understandable, I further divided the categories into self-explanatory subtitles, which give a good indication of the types of statements participants made. The following table shows the number of data units per category and the titles and subtitles of the thematic categories.

Table 8: Number of Data Units per Thematic Category

| Category Title and Subtitles                             | Positive   | Negative  | Total      |
|--|------------|-----------|------------|
| <b>1. OVERALL PROCESS</b>                                | <b>37</b>  | <b>14</b> | <b>51</b>  |
| a. General positive comments                             | 12         |           |            |
| b. Liked the choices                                     | 1          |           |            |
| c. Results were useful                                   | 2          |           |            |
| d. Group interaction was helpful                         | 1          |           |            |
| e. Prioritizing the cards was useful                     | 5          |           |            |
| f. Learned new things about self or workplace            | 16         |           |            |
| g. Not enough choices                                    |            | 2         |            |
| h. The large number of cards made prioritizing difficult |            | 7         |            |
| i. Wanted more information about the sort                |            | 1         |            |
| j. Wanted to know the meaning of the results             |            | 4         |            |
| <b>2. TIME</b>   | <b>2</b>   | <b>18</b> | <b>20</b>  |
| a. Had enough time                                       | 2          |           |            |
| b. Wanted more time to sort cards                        |            | 12        |            |
| c. Wanted more time to debrief                           |            | 6         |            |
| <b>3. PLACE IN GROUP</b>                                 | <b>11</b>  | <b>6</b>  | <b>17</b>  |
| a. Good to have in first session                         | 7          |           |            |
| b. Complemented group                                    | 4          |           |            |
| c. Better to do later in group                           |            | 6         |            |
| <b>4. WORDING</b>  | <b>5</b>   | <b>23</b> | <b>30</b>  |
| a. Liked use of first person                             | 2          |           |            |
| b. Liked words in context                                | 2          |           |            |
| c. Liked business language                               | 1          |           |            |
| d. Item did not allow choice to be rejected              |            | 1         |            |
| e. Similar wording was confusing                         |            | 17        |            |
| f. Found business language difficult                     |            | 5         |            |
| <b>5. OPINIONS ABOUT THE 3 COMPETENCY CATEGORIES</b>     | <b>29</b>  | <b>15</b> | <b>44</b>  |
| a. Like the division of the sort into 3 categories       | 7          |           |            |
| b. Liked the blue (knowing-why)                          | 16         |           |            |
| c. Liked the green (knowing-whom)                        | 4          |           |            |
| d. Liked the yellow (knowing-how)                        | 2          |           |            |
| e. Didn't like the blue (knowing-why)                    |            | 1         |            |
| f. Didn't like the yellow (knowing-how)                  |            | 1         |            |
| g. Didn't like the green (knowing-whom)                  |            | 13        |            |
| <b>6. PARTICIPANT PACKAGE</b>                            | <b>11</b>  | <b>1</b>  | <b>12</b>  |
| a. Liked writing out the results                         | 7          |           |            |
| b. Liked questions in package                            | 4          |           |            |
| c. Didn't like questions in package                      |            | 1         |            |
| <b>7. COMPARISON TO OTHER GROUP EXERCISES</b>            | <b>11</b>  | <b>7</b>  | <b>18</b>  |
| a. Liked the ICCS better                                 | 11         |           |            |
| b. Like other exercises better                           |            | 7         |            |
| <b>TOTAL</b>   | <b>106</b> | <b>84</b> | <b>190</b> |

The criteria for each category and subcategory were established once I began sorting data units into groups. The criteria underwent change throughout the sorting process and were finalized once I was satisfied with the categories I had established. These criteria

and examples from the largest subcategories will be described below. The analysis of focus group data is challenging, as the guidelines for analysis are sparse. This is also true when it comes to criteria, as there are no clear guidelines for what criteria are or how detailed they should be. My description of the criteria I used when deciding which data units belonged to which categories is brief but I have attempted to provide enough information to give an understanding of my decision-making process.

I believe that it is important to recognize that some of the categories relate specifically to the ICCS as an instrument or product, while others describe aspects of the delivery such as the setting, the manner in which the card sort was administered, or the characteristics of the students. I will describe how each category can be classified.

#### Category 1: Overall Process

This category contains statements participants made about the process of completing the ICCS as indicated by subcategory titles such as ‘group interaction’, ‘results were useful’ and ‘prioritizing the cards was useful’. This category was initially formed from items that did not clearly fit into other categories and one of the criteria remained that the items here did not fit into any of the other categories. The other criterion was that statements included provide a ‘big picture’ perspective that did not focus on one specific feature of the card sort. Data units were generated primarily from the question, “What were the things you liked and didn’t like about it?”

The largest subcategory is ‘new learnings’ and contains statements from participants describing the insights they gained about themselves or about the world of work by completing the ICCS. One participant shared one of these new learnings:

I really like the card sort... I found out quite a bit about myself from just that class. That was really helpful for me. When I think it talked about leadership, and I like to learn, whether from people or from my career or just always taking courses for myself throughout my lifetime. I knew I liked to learn but I didn't realize how much it played in my life.

Another student explained that as a result of doing the card sort she saw herself and the world of work in a new way:

...I learned things about myself that sometimes you don't realize or you don't think about. I think a lot of the stuff about family and work flexibility, like hours. I didn't realize that was such an important thing. I guess because there's always a stigma of 'you work 9 to 5' and so that was kind of interesting, having to step back and realize I don't have to be strictly regimented.

The subcategory of 'general positive comments' refers to brief statements describing students' overall impression of the card sort, such as "I found it was interesting", "We did all this and it was tough but I thought it was really helpful" and "For me I just think this is really important to do."

The subcategory of 'prioritizing the cards was useful' is composed of statements such as "the process of picking the pile and then eliminating it down to 7 was really helpful because I was beginning to really narrow it down" and "I felt the sequence with this activity, that we had to prioritize them into the list that I got, was pretty helpful." These indicate that students found it useful to prioritize their most important cards.

On the negative side, many participants talked about the difficulty they had sorting and prioritizing the cards. According to one student,

I just found it quite difficult for me to do because there's so many cards. It was overwhelming at first and it was a long process so you kind of forgot the first ones that you picked and then you're already at the end, and trying to remember, "ok, I've already got about 20 in this pile," so trying to figure out which ones are the most priority. So for me to pick the best was definitely a challenge. And depending which way you're thinking at the time, like if you're focusing more on family or career, depending on what you want to focus on more you're going to come out in a certain way, so I thought if I could have a certain career then maybe I'd put something else as my priority.

The subcategory 'wanted to know the meaning of the results' contains statements from students who would have liked to have their results interpreted further:

I would have liked to know what, I guess what the codes were. Like it seemed like things led to a way of deciding what would be perfect for us and yet it left it questionable. It was interesting to see those things, but then what?

This category contains statements that refer to characteristics of both the ICCS specifically as well as to the setting. The subcategory of 'general positive comments', which contains statements such as "I enjoyed the card sort. I thought it was helpful" refers more specifically to the cards, as do the subcategories of 'liked the choices,' 'results were useful,' 'not enough choices,' and 'wanted to know the meaning of the results.' The subcategory of 'group interaction was helpful' however, pertains specifically to the group setting in which the ICCS was administered. The subcategory of 'the large number of cards made prioritizing difficult' is a mixed one, as it is

dependent on both the quantity of card sort items as well as on the limited amount of time the students had in which to do the sort.

### Category 2: Time

The criteria for inclusion in this category are that statements must refer to the time that was available to participants to both sort their cards and to discuss the results of the ICCS. The data units were easy to distinguish based on these criteria as most participants had strong views on the amount of time that was available to them. Data units that resulted from these views were clear and descriptive.

While the majority of participants thought that they didn't have enough time, a few participants thought they did, as illustrated by this statement:

I felt actually though that the sorting was about the right amount of time, because I don't think you should spend too much time deciding. It should be your first reaction, so I felt that the time we did it in was ok.

A more typical statement in this category demonstrates that participants felt they needed more time: "I thought it was good but I didn't feel like we had enough time. I felt like I was doing it just to get it done, so I can't get a lot out of it because I needed more time." Another student explained further the reason she would have liked to have more time:

We sort of chose them and then we kind of moved on. So I think the time factor really inhibited getting a lot out of going through all the cards, like the different meaning between the yellow and green. I understand that one was about knowing-whom and knowing-how but it didn't totally come through

because I was so busy trying to do it that I didn't really have the time to reflect on the choices.

The subcategory of 'wanted more time to debrief' shows that students would have appreciated the opportunity to reflect on their choices as a group:

I agree too with what G was saying too about the idea that after we were finished it would have been nice to talk to the group or some kind of debriefing exercise where we could have talked about what the process was like and what that felt like and what it means and what do we do now with the information incorporating elements from these things and what situations and I know that we didn't have time to do that.

The entire contents of this category are primarily dependent on the setting and context of the Career Development Group and Counselling Services. It was administered in a setting in which time is at a premium and this reflects the relatively large number of statements indicating that students felt pressured and hurried.

### Category 3: Place in Group

The criteria for inclusion in this category are that statements must refer to whether or not the participants thought that it was a helpful to have the ICCS administered in the first session and how well they thought it fit into the group as a whole.

Most of the statements in this category are positive, meaning that students appreciated having the card sort in the first session and they thought it complemented other group activities. As one participant stated,

It's a good idea to do it in the first session because it really puts forward traits of who you are and what you want in a career, especially the blue [knowing-why cards]. It really points out things that I am looking for and you know those right off the start. From there you can take the next step forward: "what skills do I have for this?" So think it fit really well, especially doing it in the first one.

Another student found the ICCS appropriate to do in the first session because it allowed her to think about her values:

I thought it was good because I believe in the first session what we talked about was our values, and what we liked and what we didn't like. So this exercise really fit in because you would have to rank those things that are most important to you and so that was very related to your values. And you could see the overlap and you could see there were times in the group when we talked about why they were, so that was useful.

Students on the whole also thought the ICCS to be a useful part of the group overall. As one participant stated, "It was complementary, definitely." Another also thought it was a useful but not the most significant part of the group: "It was good to have it. It was complementary, but it wasn't, in my mind, the major component of the whole group."

A number of students, however, thought it difficult to have the ICCS in the first session. According to one participant:

I think having it at the beginning didn't work very well for me because I think a lot of the stuff I was trying to decide... I was thinking, "is this really what I think?" or am I saying this because this is maybe what somebody else thinks, or that kind of

thing, but after four weeks of really pounding into what I want then I would probably have a better time doing it.

This category describes the setting, the students and the ICCS as a product. I introduced the card sort in the session that seemed most appropriate after considering the purpose and characteristics of the ICCS, the contents of other group sessions and after consulting with counsellors and administrators at Counselling Services. Whether or not students thought it useful to do the ICCS in the first session is dependent on their place in the career development process and on their personal preferences as well as on the design of the card sort. Also, whether or not the students thought the ICCS complemented the group as a whole is subject to their perceptions, experiences and judgments of the ICCS compared to the other more traditional exercises used in Career Development Groups.

#### Category 4: Wording

The criterion for inclusion in this category was that a statement had to explicitly refer to the way the card items were worded.

On the positive side, one participant remarked,

I liked the card sort. I thought compared to other cards that it was interesting and had a different emphasis. It was easier to do just with things in context than the ones with just the simple words. Words not in context meant different things, so I felt that it gave an explanation of what it meant, which was better than just the words.

She was specifically comparing the ICCS to the Occupational Card Sort, which shows only occupational titles and a brief description of the occupation. Another participant remarked that she liked the use of the first person on card items as it helped to personalize the items for her: "I'll just say that they used 'I'. It's just easier to choose. When you read the question it says, 'I want this' and 'I want that,' so you could just say true or false."

On the negative side, many participants found the wording of the cards to be confusing because the differences between items are not always explicit. For example, one participant remarked,

One of the initial things that I was feeling when doing it was that it was very difficult to discriminate between some of the cards. So I ended up with this huge pile of yeses and from that it was quite challenging to break it down into like just picking 7 in each one [category]. So I found that process was a little bit challenging just because a lot of them seemed to be similar and yet there were slight variations in how they were worded, and so I found that it was... quite difficult to choose.

Another participant shared a similar experience:

It would be one word that was different on two things [card items] and they were almost like trick questions, I felt. I'm kind of reading more to the general idea and then I could never quite figure out what the complications said. It almost seemed like more of an exercise in reading comprehension.

The one statement in the subcategory of 'item did not allow choice to be rejected' refers to the knowing-why card item 'I am trustworthy at work.' One of the participants

noted that he found this did not fit in with the rest of the sort: “there was one that said ‘I am trustworthy.’ There were other ones you could say “no,” but this one was really important, I guess.” This illustrates one of Stephenson’s (1953) principles about the Q-technique, specifically that items need to achieve a degree of homogeneity so that no one item is noticed due to marked differences compared to other items.

This entire category pertains more to the ICCS as an instrument than to the setting or participants. That is, the way in which the items are worded and the quantity of items is a specific characteristic of the sort that is not dependent on the setting.

The way in which the wording was perceived does indicate that students on the whole were not comfortable with the business terminology that is used in many of the items. Business language is used most often in the knowing-how and knowing-whom categories, which include phrases such as ‘my industry’, ‘high performing team’, ‘my occupation’, ‘my adopted field’, ‘my industry’s rules and regulations,’ ‘my company’s policies and personalities’ and ‘my company’s organizations and governance.’ Most university students are not exposed to these expressions in their studies, nor do they usually experience business environments first hand.

Statements in the subcategory of ‘found business language difficult’ include the following: “Some of them [card sort items] are ok, but some of them are more learning about my industry skills and occupation. I don’t know what my industry is” and “The longest I’ve ever had one job was five months and it wasn’t in a company, so that was difficult...in that I don’t have that kind of information.”

When asked whether a different card sort with more general language should be developed for university students, one participant stated,

I think a different sort. I think again it has to do with the target, like who you're targeting and how you want to approach them. For me I didn't really mind too much how the cards were worded about business because I am in business in a sense (this student was a commerce major), but I can see how it might have been weird in a way, so that if they used more general language to approach a broader base of people. I think more general language would be better.

The one student who did like the business language explained that, "It's nice to think in ways as though you're already working."

#### Category 5: Participant Package

The criterion for inclusion in this category is that statements must describe whether participants liked the package (Appendix 2) that they received during the administration of the ICCS. All statements but one in this category are positive. As one participant explained, "I found the process of writing out, the reflection on the choices, to be helpful." Another stated that,

You had to actually lay it all out on paper again after you looked at each card and understand each one and things popped up in your mind as you read the card. You had to write it down and make it a bit more finalized... That was good, so I think what distinguished this card sort is that you write down your results, which makes it clear and visible and hopefully it stays in your mind.

The one participant who stated that he did not like the package did not like the questions at the bottom of the first of each coloured page: "I found the questions at the

bottom of the recording sheets to be just random questions. They didn't seem to be worded very carefully at all."

The package, as a practical and unique accompaniment to the ICCS, pertains specifically to the ICCS and its administration. Opinions about it were overwhelmingly positive, indicating that the students found being given thought-provoking questions to consider and space to write their reflections useful. Perhaps because university students are generally accustomed to putting their thoughts into writing on a regular basis, they are uniquely well-suited to appreciating the package.

#### Category 6: Opinions About the 3 Competency Categories

The criteria for inclusion in this category are that statements refer to a particular competency as represented by the different colours or to the division of the sort into the three competencies.

The favourite competency was knowing-why, represented by the colour blue. One participant noted,

I think blue for me was about personal reflections and that was the point of me being here, to get rid of all the extrinsic "what the rest of the world thinks I should be" and what is it that is important to me? so that kind of tapped into that.

Another student explained, "I thought that the blue ones were the most helpful out of the three because they helped me really specify what my values were because I really never knew."

The least favoured competency was knowing-whom, represented by the colour green. The students offered reasons for this, including the discomfort one participant

had with the idea of 'using' people: "Just with the green, I felt selfish almost, like you're using people, you're selfish. I don't know if you're supposed to outwardly do that even though that's what people do." Another student expressed the difficulty she had prioritizing her relationships:

The reason why the green were least useful was because it was like [there were items that stated] 'I develop and maintain relationships to receive social support' - yeah, and then its like 'I develop and maintain relationships with family' - yeah, 'I develop relationships with friends', so you've got 7 choices and you've got to include past relationships and relationships that you're maintaining and past relationships that you want to foster and then you're including family, friends, jobs, colleagues, there's more than 7 right there, so its like all these things are important.

A third participant lamented her lack of work experience, which made sorting the knowing-whom cards difficult:

The one that I thought was the most difficult was I think the green one, because I really hadn't worked that much. I've only worked for two summers so I had to base it on experience that was probably very limited, so that might not be as accurate as the others. The green cards were not familiar to me.

A small minority (4) of statements describe the knowing-whom cards to be useful as they helped clarify the types of relationships that are important to students in terms of their future careers. One student explained,

I think actually for me the green one was more useful. Because I think things about why is something I've thought a lot about before. I can sort of just

really sit there and think about that, no problem. That's about me. But in terms of how I relate to other people I have more difficulties with that, so it was interesting to see what kind of relationships I want to develop in terms of work.

The knowing-how (yellow) cards drew the least reaction from students, either positive or negative. They were found to be useful by one participant who explained,

The yellow one was really helpful in helping me to really identify the kinds of things I look for in a job, like how I want my lifestyle to be and whether I'm learning from my job or doing interesting things. It also helped me identify my work ethic, like how I want to do things.

The one negative comment about the knowing-how cards was, "the yellow ones were more action, what would I do, and I'm not ready yet for that" which indicates that the student is not developmentally ready to consider taking action in the manner described by the knowing-how cards.

The competency category colour scheme is an intrinsic characteristic of the sort. The competency that students found most useful, namely knowing-why, reflects the importance they placed in those card items. The participants found looking at their values, motivations and identity to be useful. University students are typically at an early stage of the career development process during which they are beginning to form a career identity and this may explain why they found the knowing-why cards to be most applicable. The students had the most difficulty with the knowing-whom competency, showing that they are not accustomed to thinking about their relationships in the detail offered by the card sort. Also, since most students do not have much work experience,

many of the relationships described in the cards were unfamiliar to them and therefore difficult to prioritize.

#### Category 7: Comparison to other Group Exercises

The criterion for inclusion in this category is that a statements must clearly compare the ICCS to another group exercise.

On the positive side, some participants liked the ICCS better than any of the other instruments or exercises used during the course of the group. One participant liked the ICCS better because,

Compared to the Strong [the Strong Interest Inventory], I felt that the Strong isn't really a true reflection of who I am, because it seemed quite narrow, like the occupations it chose for me were things I may have an interest in but that I can't see myself ever having an occupation like that, like Geologist. I love the earth but I'm not one to go into the mountains and take samples, or go through stats and things like that, and you'd be learning, but I don't think I could do that all the time. I'm critical, I did Political Science, but I would never want to be a politician. I just don't see myself doing those things, not because I don't think I could but because I wouldn't want to. So this [the ICCS] seemed more who I was, you know?

Another student simply said that compared to the other card sorts in the group, "These were more useful."

Some students preferred other instruments, particularly those that provided them with concrete results. As one participant stated, in reference to the Kiersey-Bates and

Strong Interest Inventory, "It seems like it gives you an answer, it's a little bit more rewarding that way. Maybe it's more work to do the card sorts."

The statements in this category are dependent on both the setting of the Career Development Groups and on the characteristics of the participants. The number and variety of exercises used in Career Development Groups is necessarily limited due to time constraints, so the ICCS was compared to only a small selection of existing career exploration exercises. Also, the opinions of the participants are necessarily influenced by their individual perceptions and experiences. Certain university students may possess characteristics that predispose them to prefer the ICCS to other instruments or vice versa.

#### Agreements and Disagreements

With group interviews, agreements or disagreements are fundamental processes that influence the nature and content of responses as the group progresses (Kidd & Parshall, 2000). This was my experience during my focus group interviews, both within groups and across groups.

In group 3, the members debated whether or not it would be useful to take the ICCS home as homework. One of the members explained,

If we could take it home with us, it would probably be a lot more effective in the long run, because we'd have a chance to review it and to refresh our minds after seeing it. I'd like to take it home for an extended period of time or even altogether.

The other two members of this group disagreed. One of them decided “I would rather just do it, but I’d rather not take it home because I have so many other things to do.” It was a case of two against one, but they eventually agreed to disagree. One of the participants summed up this agreement with

It really depends to what kind of person you are. Because I think P [the member who wanted to take the cards home], you’re really into exploring and figuring out who you are and growing and I don’t want to say that I’m not, but I would not bring it home and look over it again. We did it and we wrote it down and that’s what I am. I don’t feel like I’m going to change that significantly, so I wouldn’t [take the cards home]. But to each his own.

The other significant disagreements were across groups, in which one group came to a different consensus than other groups on certain issues. Looking at Table 8, it is clear that there were many differences across groups. For example, there are 7 statements describing the difficulty participants had prioritizing cards because of the large number of card items, but two statements demonstrate that there weren’t enough choices. One of these participants explained, “I had a hard time. Most people I think had too many yeses and I didn’t have enough. I had 4 yeses and then I had to go through my maybe pile.”

Another example is in the category of ‘Time.’ While the majority of groups (5 out of 6) thought they did not have enough time, one group thought otherwise:

I felt actually though that the sorting was about the right amount of time, because I don’t think you should spend too much time deciding. It should be your first reaction, so I felt that the time we did it in was ok.

The other members of this group agreed with this statement.

Similarly, in Category 3, some groups thought it helpful to have the ICCS in the first session while others thought it would be more useful later in the Career Development Group process. During the focus group interview, one participant asked the rest of the group,

Do you think it would have been more useful, I'm just thinking this for myself now, to have done this not on the first or second day, but later in the group? It kind of hits you out of the blue and I was just starting to do some reflection.

In Category 4, the main difference had to do with the use of business language on card items, with some groups thinking it was useful to think in these terms and others finding it difficult. Category 5 shows that although the majority of participants preferred the knowing-why card sort section and had trouble with the knowing-whom, others found the reverse to be true. While most students liked the package (Category 6), there was one dissenter, and there were also differences of opinion about whether the ICCS was preferred over other group exercises (Category 7).

These disagreements can be attributed to individual differences in expectations, personal style and past experience. As shown by Table 1, the students came from a variety of backgrounds, and their unique attributes necessarily had an influence on their opinions.

### New Ideas

As noted by Gray-Vickrey (1993) the creative synergy of focus groups often leads to the generation of new ideas by participants. This is one of the exciting by-products of focus group interviews, and this was certainly the case in this study, as participants offered many suggestions on how to improve the card sort as well its administration. As stated in the Introduction, I hoped that the results of this study would suggest ways to improve the ICCS, especially as it was not initially developed for use with university students, who are a unique population with different characteristics and challenges from that of workers.

One category of suggestions pertains to the amount of time allowed for the administration and interpretation of the ICCS. As one participant noted, “it seems to take an hour to go through the sort, so it would be nice to have half an hour to talk about it.” Other participants who made similar suggestions valued interaction with other group members and would have appreciated “more time to actually reflect upon it immediately after so that we get a chance to go through why we chose some of those that we did and have dialogue about that.” Another participant suggested that it would be useful to do the card sort again later in the group so that they could integrate things they learned about themselves during other group sessions: “I liked it and it was good to have. It was complementary, definitely. If we did it and then we did it again. So it felt a bit more thorough.”

Another participant, who really enjoyed the card sort, suggested that clients be given a set of cards to take home:

I think that it would be more effective also if you gave us the cards to do at home over a nice long period of time so that you could really sit down and copy and actually fill out the sheets.

Upon reflection of her experience with the ICCS, one participant made a unique suggestion. She found that she

...made note of the ones I reacted really strongly to in terms of nos. So it might be helpful even in terms of the package, because I think it is significant for me anyway not only what I reacted really strongly to in the sense of "yes, this is me" but also, "whoa, that's totally not me."

Several participants also suggested changing the wording, either by eliminating some items so that there are "less cards and cards that were more, put some of these together." These students felt it "would be more effective if they streamlined it down," to "Make it pointed and quick and then it follows that it stays in your head instead of diverting all over." The students felt that there were too many subtle shades of meaning among some items which made it difficult to differentiate them:

And especially the green, because I felt they overlapped and I felt frustrated when they said "I develop relationships with people inside my company" and then there's relationships with actual colleagues, so should I pick one or pick both, because both are like the same thing.

Some students took issue with the use of business language on the items, especially with the knowing-how (yellow) and knowing-whom (green) sections. When asked whether she thought it would be a good idea to develop differently worded sort for university students, one participant said,

I think a different sort. I think again it has to do with the target, like who you're targeting and how you want to approach them. For me I didn't really mind too much how the cards were worded about business because I am in business in a sense, but I can see how it might have been weird in a way, so that if they used more general language to approach a broader base of people. I think more general language would be better.

Several participants in different groups explained that they would have appreciated to have more information about the ICCS:

I would have liked to know more about the card sort. Not necessarily the development of it but the whole purpose behind it, like is there some sort of article that describes the importance of it or what it actually does.

Others wanted their card choices to provide measurable results in the same way that inventories and tests do: "For the green ones specifically, to a lesser extent for the other ones, what the choices could have pointed towards. So if you had a certain style that it meant...?"

## DISCUSSION

This study sought to learn about the experience of university students who completed the ICCS, a relatively new card sort instrument that has been based on the Intelligent Careers model, which is informed by recent advances in organizational theory on career development. The research questions underpinning this study were:

1. Which card items did university students choose and how do they compare to other populations?
2. What are the positive and negative characteristics of the Intelligent Careers Card Sort™ as identified by university students in career development groups?

The research also generated new ideas and suggestions from the participants on how to improve the ICCS. It is important to revisit some of the topics covered in the Literature Review as these provide a basis to further interpret the results.

### The Practical Soundness of the Intelligent Careers Conceptual Model

The majority of statements about the Intelligent Careers Card™ sort indicated that students found it to be useful. As noted in the Results section, some of the categories were more dependent on the delivery of the card sort, which includes factors such as the setting and structure of Career Development Groups, the manner in which I administered the card sort, and the characteristics of the students, while others describe the card sort as a product. If the entire category of ‘Time’, for example, were removed, the ratio of positive statements would increase substantially. Two categories, namely ‘Comparison to other Group Exercises’ and ‘Place in Group’ describe both the delivery of the ICCS and the ICCS as a product. Using this means of differentiating the

categories, there are 79 positive and 59 negative statements that describe the ICCS as a product, 3 positive and 19 negative statements that describe the delivery, and 23 positive and 13 negative mixed statements.

These results indicate that the conceptual basis of the card sort, namely the Intelligent Careers model, is sound and can be productively applied to the university student population. The aspects of the card sort that the students thought were useful strengthen this claim. For example, students appreciated the division of the card sort into the three coloured competency categories: "It probably is helpful to have the different colors. It does sort of separate them: this is about knowing how, that type of thing. It provides a kind of a shift." They also commented that the competencies complemented each other and provided a comprehensive way of looking at career: "I think they were all helpful. I just thought they went well with each other and I couldn't have one without the other. Like you said, why, who and how were important." This feedback from the students lends support to the notion that the Intelligent Careers model provides a holistic perspective of career (Parker, 2000).

The students chose knowing-why as being the most useful category for them, which reaffirms the vital importance of examining values, identity and motivation in career development. Values have long been recognized as crucial subject to explore with clients, with several research studies that examine values having been conducted (Dillard & Campbell, 1978; Richmond, 1985; Cooper & Robinson, 1987). Instruments that assess clients' values, such as the Work Values Inventory (Super, 1968), have also been developed. Furthermore, an exploration of values is frequently the natural starting

place in career counselling as this knowledge about the self forms the necessary background for clients to research the labour market and to make career decisions.

The knowing-how competency was the least discussed of the three competencies, indicating that participants found it to be the least problematic. Students primarily referred to this card sort section indirectly through comments about the use of business language, which is more prominent in the knowing-how and knowing-whom cards than on the knowing-why cards.

The knowing-whom competency proved to be the most difficult for students, indicating that they are not accustomed to thinking of their relationships as career resources. This parallels Parker's (1997) results, as she found that her participants had difficulty with this category as well. The area of relationship building in terms of career development is a relatively underdeveloped one and few traditional exercises help clients strengthen this skill.

This research also confirmed the usefulness of card sorts as a career development instrument, as many students enjoyed the card sort format: "I liked sorting the cards. I had fun doing it." Many students also appreciated the package that comes with the ICCS, finding it helpful to write out their results and reflections.

#### Suggestions for Improving the ICCS and ICCS Administration

Based on statements made by the participants, there are several recommendations for improving the card sort so that it is more useful for university students.

The first and perhaps most important way to improve the administration process is to ensure that sufficient time is allowed. Several students suggested that one and a half

or two hours would be a better length of time in which to complete and debrief the sort. This length of time would also allow students to capitalize on the group interaction that they found useful.

A second way to improve the card sort for use with university students would be to change the wording on some card items by removing the business language and replacing it with more general language or language that is geared to students. For example, one of the items in the knowing-how category is 'I am learning about my industry's rules and regulations.' Students commented that items like these were difficult for them as they do not currently participate in an industry. This item can be changed to: 'I am learning about how I can enter industries that interest me,' as this statement might be more understandable and applicable to students and it retains the original item's emphasis on industry.

Another way to clarify and simplify the wording would be to condense some card items. For example, three of the items in the knowing-whom section are, 'I develop and maintain relationship with family', 'I maintain relationships to keep my old friends' and 'I cultivate relationships to make new friends.' A fourth item is 'I develop and maintain relationships to receive social support,' which can be conceptualized as a broader umbrella category for the three mentioned previously, as a client who maintains relationships with family and friends usually does so to receive social support. Therefore, the first three items can all be subsumed under the fourth one, as sources of social support include friends and family. These four items can thus be reduced to one, which reads: 'I develop and maintain relationships with friends and family to receive social support'.

A third way to improve the administration might be to provide more information about the ICCS at the beginning of administration, perhaps by teaching students about the Intelligent Careers theory and the meaning of the three competencies, or by handing out an information booklet during the previous session that is to be read for homework. Counsellors and facilitators might also explain in more detail how the results can be used and what they might indicate. To achieve this would of course also require an adequate amount of time. Giving the students more information about the sort might also help to strengthen the educational nature of the ICCS when used with students. Many students reported that they learned new things about themselves or about the world of work by doing the card sort, so if they were provided more explicit information about the Intelligent Careers model they might gain even more insight about themselves and make better connections between the three competencies.

A final way to improve administration in a career counselling group might be to use the Intelligent Career model as an organizing framework. Other group activities can be linked to the framework and this linkage can be discussed with clients. For example, values exploration exercises come under the category of knowing-why, while informational interviewing is an example of the knowing-whom competency. This explicit connection will ensure that the ICCS is introduced in a context into which it logically and organically fits. I introduced the ICCS in a pre-existing group format, essentially cutting one exercise out and pasting in a new one. This did not allow the card sort to be fully integrated into the structure of a group as a whole a way that would prove most useful to clients.

### Limitations

As this study used a qualitative method, it is limited in terms of generalizability. Statistical analyses are typically inappropriate for focus group studies because “the group samples are usually both unrepresentative and dangerously small” (Morgan & Krueger, 1993, p. 14). The study consisted of a small segment of the university student population and thus does not represent all university students or even all UBC students. Readers are invited to consider the demographic data and assess its applicability to other populations. For example, although a variety of academic disciplines and ages are represented, the sample is largely female.

Another limitation is the way the population was sampled. Students were self-selected to attend Career Development Groups, and their characteristics may therefore differ from those of the general university population. These students may have had different experiences from other university students, such as greater anxiety about career or academic choice or financial or family pressures that led them to attend a Career Development Group.

The focus group interviews were also quite brief by traditional focus group standards, which are typically one and a half to two hours in length (Vaughn et al., 1996). Given this limited amount of time, there were many questions I could not ask and I had to be vigilant about keeping groups on topic. Also, this limited amount of time may not have allowed students to feel comfortable enough to share more of their experience and to interact more spontaneously with each other.

Perhaps the most important limitation is that only one researcher conducted data analysis. The rigour of this study would have been enhanced had a second researcher been present to sort data units into thematic categories.

#### New Directions for Theory and Research

The present research has provided information on the experience of university students who completed the ICCS. It is exploratory and enhances the literature on the Intelligent Careers model, on university student career development and on the utility of card sorts as interventions with the university student population. As a result of this research, suggestions for enhancing both theory and research can be offered.

One way to further develop the Intelligent Careers theory would be to clarify the knowing-whom competency. As acknowledged earlier, this competency is a complex one and it might be beneficial to provide more clarification around the kinds of relationships it entails. For example, a distinction can be made between relationships that offer task support or process support. An example of a process support relationship could be the one between life partners who do not work in the same occupational field. These partners, though they are not able to directly influence each other's careers, can nonetheless provide important emotional support that can indirectly enhance career success. A task support relationship could be the one between a worker and his or her supervisor. In this case, the supervisor can provide important training or knowledge as well as make decisions that will directly affect a supervisee's career. These two categories can overlap, of course, and this must be acknowledged. However, it might be useful to make this distinction as it allows for a clearer explanation to clients. A

discussion could then follow between counsellor and clients about the types of relationships in the client's life, how much those relationships display either task of process support and what kinds of relationships are needed. This distinction is in keeping with the holistic nature of the Intelligent Career as it recognizes that there are many different types of relationships in a person's life and that they are each important.

Suggestions for new research directions come from my experience with the participants. Students shared their thoughts on the ICCS, explaining what they did and did not find useful about it. They were able to identify new learnings and insights that the ICCS stimulated, and they were able to offer suggestions for improving its administration.

Since this was the first study to explore the use of the ICCS with university students, it would be important to replicate this research on other university campuses and with larger samples. It might also be useful to administer the sort in individual counselling sessions to compare students' experiences with those of students who completed the ICCS in a group format.

The focus group format appeared to be a useful one for this type of study, as it allowed the students to interact with and question each other. One way to improve the study would be to allow more time for the focus group. A focus group method will result in different data from individual interviews or surveys, so it would be worthwhile to combine it with other means of gathering data. Also, it would be important to involve a second researcher in the formation of thematic categories to enhance rigour of the final presentation of results.

There is also a need to improve focus group methodology, especially in regards to analysis. The guidelines for analyzing focus group data are limited and unclear, especially when compared to the relatively large amount of guidelines for constructing and facilitating focus groups.

Another potentially useful direction might be to further explore the card sort choices made by different populations. The students in this study made choices very similar to those of Parker's (1996) participants. The primary purpose of this study was not to explain this similarity. Research which focuses on the similarities and differences among different samples might yield interesting information about cultural, gender, demographic and other characteristics of populations in terms of career choices, and might help to answer questions about the generalizability of the card sort items. If differences are found among certain occupations, for example, this information could be used to develop an inventory similar to the Strong Interest Inventory to provide possible occupational choices to clients.

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APPENDIX 1: Consent Form for The Intelligent Careers Card Sort™ Summary  
Sheet and Questionnaire

I have read and understood this informatio and I agree to hand in 'The Intelligent Careers Card Sort Summery Sheet and Questionnaire' for research purposes.

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Participant's Signature

Date

APPENDIX 2: The Intelligent Careers Card Sort™ Participant Package

## The Intelligent Career Card Sort™

### Introduction

The “intelligent career card sort” (ICCS™) exercise is designed to help you explore your own career investments in the contemporary knowledge society. Your career, put simply, is your unfolding sequence of work experiences over time. The knowledge society is the dynamic, uncertain, learning-driven employment arena in which every worker now participates.

The idea of the “intelligent career” is designed to match your career thinking against the related principle of “intelligent enterprise,” a widely respected view of how companies compete and succeed in the new economy.<sup>1</sup> The idea of this exercise is to encourage you to think about and act more effectively in your own career, and in parallel to become a more effective contributor to the company, or more likely companies, in which your future career will unfold. The intelligent career also allows you to think about any affiliations you may hold with an industry, an occupation, or a life-style to guide your career investments.

There are no right or wrong answers to the exercise, and no two people will respond the same way. The choices you will be asked to make are designed to help you better understand the uniqueness of your own career situation. These choices should be your own. Don't think about what anyone else may like to hear. The more candid you can be, the more you stand to benefit.

Please ask now if you have any preliminary questions for your instructor or counselor. When you are ready, turn the page and begin following the steps described before beginning the exercise.

<sup>1</sup> James Brian Quinn, *Intelligent Enterprise*, New York: Free Press, 1992; Michael B. Arthur, Priscilla H. Claman, and Robert J. DeFillippi, *Intelligent enterprise, intelligent careers*, *Academy of Management Executive*, 9,4, 7-20, November 1995. Michael B. Arthur, Kerr Inkson and Judith Pringle, *The New Careers: Individual Action and Economic Change*, London: Sage, 1999.

## **The Intelligent Career Card Sort™: Instructions**

### **Step 1**

Take the set of *blue* cards. Work through the cards, sorting them into "Yes," "No," and "Maybe" piles depending on how closely they reflect the kind of career you would like and what you are presently doing to pursue that career. Keep sorting through the "Yes" and "Maybe" piles until you have at least seven cards that most describe you.

Take your selected blue cards and arrange them in rank order from most important to least important. This time, keep only the *seven* most important cards. When you are fully satisfied with your selection and ranking, copy the number from the back of each selected card onto the blue answer sheet provided, under the heading "Blue card selections".

### **Step 2**

Take the set of *yellow* cards and repeat the process described in Step 1. When you are fully satisfied with your selection and ranking, copy the number from the back of each selected card onto the yellow answer sheet provided, under the heading "Yellow Card Selections".

### **Step 3**

Take the set of *green* cards and repeat the process described in Step 1. When you are fully satisfied with your selection and ranking, copy the number from the back of each selected card onto the green answer sheet provided, under the heading "Green Card Selections".

### **Step 4**

Your own selection of blue, yellow and green cards can help in the important work of maintaining and developing comparative statistics that will help future card sort users. Please take a minute to complete the pink "Intelligent Careers: Card Sort Summary Sheet" as described in the Consent Form. Your name is not requested, and you are assured of full anonymity in any use made of your information.

After you have finished Step 4, **return all your cards and the pink summary sheet** to your instructor or counselor. Go to *Step 5*.

### **The Intelligent Career Card Sort™**

#### **Step 5: Interpretation**

The card sort you have just performed provides you with feedback about how you are approaching your career at the present time.

The blue cards suggest what we call “knowing-why” competencies. These refer to the way you *identify* with your career and the related *values* and *motivation* you bring to your work. The focus here is on knowing and developing your inner self. Your “knowing-why” competencies will help answer the recurrent question “*Why?*” you want to work and for what purpose.

The yellow cards suggest what we call “knowing-how” competencies. These refer to the particular *skills and expertise* you possess or are seeking to develop. The focus here is on knowing and developing your overall capabilities. Your “knowing-how” competencies will help answer the recurrent question “*How?*” you will perform your work.

The green cards suggest what we call “knowing-whom” competencies. These refer to the personal *network and reputation* you have built or would like to build. The focus here is on knowing and building relationships with other people. Your “knowing-whom” competencies will help answer the recurrent question “*Whom?*” you will relate to in your work.

The “knowing-why,” “knowing-how,” and “knowing-whom” categories provide a three-dimensional way to think about your unfolding career. Each category represents a different form of knowledge. You are invited to think about yourself as a knowledge worker in what is rapidly becoming a knowledge society. Your answers to the card sort tell you what themes are most important to you in each category, as you manage your own career and your own learning as the knowledge society comes about.

Now proceed to *Step 6* on the Blue Card Worksheet.

**The Intelligent Career Card Sort™ - Blue Card Selections (“knowing-why”)**

List your seven selected cards in rank order, the highest ranked card first.

| Card description | Reference Number |
|------------------|------------------|
| 1. _____         |                  |
| 2. _____         |                  |
| 3. _____         |                  |
| 4. _____         |                  |
| 5. _____         |                  |
| 6. _____         |                  |
| 7. _____         |                  |

(Return to *Step 2* after completing the above list.)

**Step 6**

Look back over your “knowing-why” items listed above. What do your selections and rankings tell you about how you identify with your career, and what values and motivation you bring to it? How do your items relate to the employment environments or *cultures* you have experienced, or would like to experience in your future career? What do your items suggest about the way you would like contribute to the work environment? Make notes below, and share your thoughts with your group or counselor as instructed.

**The Intelligent Career Card Sort™ - Notes on Blue Card ("knowing-why") Selections**

**First ranked card:**

**Second ranked card:**

**Third ranked card:**

**The Intelligent Career Card Sort™ - Notes on Blue Card (“knowing-why”) Selections**

**Fourth ranked card:**

**Fifth ranked card:**

**Sixth ranked card:**

**The *Intelligent Career Card Sort*<sup>TM</sup> - Notes on Blue Card (“knowing-why”) Selections**

**Seventh ranked card:**

**Additional notes:**

**(Use this space for any overflow notes about individual card selections, or links between different card selections, or further reflections on the “knowing-why” part of the exercise.)**

**The Intelligent Career Card Sort™ - Yellow Card Selections (“knowing-how”)**

List your seven selected cards in rank order, the highest ranked card first.

| Card description | Reference Number |
|------------------|------------------|
| 1. _____         |                  |
| 2. _____         |                  |
| 3. _____         |                  |
| 4. _____         |                  |
| 5. _____         |                  |
| 6. _____         |                  |
| 7. _____         |                  |

(Return to *Step 3* after completing the above list.)

**Step 7**

Look back over your “knowing-how” items listed above. What do your selections and weights tell you about the way you are developing your skills and expertise? How do your items relate to the expectations you have experienced, or would like to experience, from employer companies? What do your items suggest about the way you would like to contribute to a group's or company's collective skills and knowledge? Make notes below, and share your thoughts with your group or counselor as instructed.

**The *Intelligent Career Card Sort*<sup>TM</sup> - Notes on Yellow Card ("knowing-how") Selections**

**First ranked card:**

**Second ranked card:**

**Third ranked card:**

**The *Intelligent Career Card Sort*<sup>™</sup> - Notes on Yellow Card (“knowing-how”) Selections**

**Fourth ranked card:**

**Fifth ranked card:**

**Sixth ranked card:**

**The Intelligent Career Card Sort™ - Notes on Yellow Card (“knowing-how”) Selections**

**Seventh ranked card:**

**Additional notes:**

**(Use this space for any overflow notes about individual card selections, or links between different card selections, or further reflections on the “knowing-how” part of the exercise.)**

**The Intelligent Career Card Sort™ - Green Card Selections (“knowing-whom”)**

List your seven selected cards in rank order, the highest ranked card first.

Card description

Reference Number

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

(Return to *Step 4* after completing the above list.)

**Step 8**

Look back over your “knowing-whom” items listed above. What do your selections and weights tell you about your developing network and reputation? How do your items relate to the kind of interpersonal relationships you hold, or would like to hold, through your employment? What do your items suggest about the way you would like to contribute to company, occupational, industry or other kinds of networks? Make notes below, and share your thoughts with your group or counselor as instructed.

**The *Intelligent Career Card Sort*<sup>™</sup> - Notes on Green Card ("knowing whom") Selections**

**First ranked card:**

**Second ranked card:**

**Third ranked card:**

**The *Intelligent Career Card Sort*<sup>TM</sup> - Notes on Green Card ("knowing-whom") Selections**

**Fourth ranked card:**

**Fifth ranked card:**

**Sixth ranked card:**

**The Intelligent Career Card Sort™ - Notes on Green Card (“knowing-whom”) Selections**

**Seventh ranked card:**

**Additional notes:**

**(Use this space for any overflow notes about individual card selections, or links between different card selections, or further reflections on the “knowing-whom” part of the exercise.)**

**APPENDIX 3: Consent Form for ‘The Identification of Positive and Negative  
Characteristics of ‘The Intelligent Careers Card Sort™ as Experienced by University  
Students’ Focus Group Interviews**

APPENDIX 4: The Intelligent Careers Card Sort™ Summary Sheet and  
Questionnaire

Fall 2000

**The Intelligent Careers Card Sort Summary Sheet and  
Questionnaire - Please hand this sheet in to your group leader**

**\*DO NOT PUT YOUR NAME ON THIS FORM\***

Please take each of your selected sets of blue, yellow and green cards in turn. Working from the highest ranked to the lowest ranked items in each set, enter the reference numbers from the back of each card in the columns below.

|                | Blue<br>Cards | Yellow<br>Cards | Green<br>Cards |
|----------------|---------------|-----------------|----------------|
| Rank Number 1: | _____         | _____           | _____          |
| Rank Number 2: | _____         | _____           | _____          |
| Rank Number 3: | _____         | _____           | _____          |
| Rank Number 4: | _____         | _____           | _____          |
| Rank Number 5: | _____         | _____           | _____          |
| Rank Number 6: | _____         | _____           | _____          |
| Rank Number 7: | _____         | _____           | _____          |

**Questionnaire**

1. Age: \_\_\_\_\_
2. Gender:      Male \_\_\_\_\_                  Female \_\_\_\_\_
3. Educational Status: Full-time \_\_\_\_\_                  Part-time \_\_\_\_\_  
                                  Undergraduate \_\_\_\_\_                  Graduate \_\_\_\_\_  
                                  Year \_\_\_\_\_  
                                  Major \_\_\_\_\_  
                                  Expected date for the completion of your  
                                  current course of studies: 20 \_\_\_\_\_
4. Marital Status:      Single \_\_\_\_\_ Widowed \_\_\_\_\_  
                                  Married \_\_\_\_\_                  Common Law \_\_\_\_\_  
                                  Separated \_\_\_\_\_                  Other \_\_\_\_\_  
                                  Divorced \_\_\_\_\_
5. Parental Status:      Mother \_\_\_\_\_ Step-Parent \_\_\_\_\_  
                                  Father \_\_\_\_\_ Not a parent or Guardian \_\_\_\_\_  
                                  guardian \_\_\_\_\_

6. Have you used the services at UBC Student Counselling Services or Career Services before?

Yes \_\_\_

No \_\_\_

**If yes, which service(s)?**

---

Thank you. Please return all cards and these pink sheets to your group facilitator. Return to Step 5 of the Instructions.