

**CAREER MATURITY, CAREER KNOWLEDGE, AND SELF  
KNOWLEDGE AMONG PSYCHOLOGY HONOURS  
STUDENTS: AN EXPLORATORY STUDY**

by

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## DECLARATION

I, **Precious Bupe Mubiana**, declare that the work on which this dissertation, **Career maturity, career knowledge, and self knowledge among honours students: An exploratory study** is based, is my own original work except where acknowledgements by means of complete references indicate otherwise. I also proclaim that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree at this or any other university, tertiary institution or examining body.

Precious Bupe Mubiana

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **DEDICATION**

This dissertation is dedicated to the memory of my late father, Godfrey Mubiana for having been an example in my life and for instilling values in me for which I will be forever grateful.

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I would not model the integrity I value so much if I did not mention the enormous strength I get through my faith relationship with God. To God be the glory, honour and adoration for giving me the strength to complete this project.

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## ABSTRACT

This study explores career maturity, self knowledge and career knowledge and how they influence career decision-making processes among psychology honours students at a South African institution of higher learning. A mixed method approach was used to collect data among (N=62) students who were asked to fill in two career development questionnaires namely, the Career Decision-making Difficulties Questionnaire (CDDQ) and the Career Development Questionnaire (CDQ). 10 scales were measured using the CDDQ. Analysis of the CDDQ revealed moderate difficulties on the General Indecisiveness, Dysfunctional Beliefs and Occupational Information scales. Pertaining to the CDQ, 5 distinct scales which explore the levels of Self information (Self knowledge), Decision making, Career information (Career knowledge), Integration of self information and career information, and Career planning were assessed. Analysis of the CDQ revealed that respondents had adequate levels of career maturity. The results of the content analysis on the qualitative data indicate clinical psychology to be the most popular in relation to other fields of study, followed by research psychology counselling psychology and psychometry.

## KEY TERMS

Career development; Career decision-making; Career information; Career Decision-making Difficulties Questionnaire (CDDQ); Career Development Questionnaire (CDQ); Career maturity; Career Options; Career Planning; Employment Opportunities; Psychological studies; Self knowledge.

## CHAPTER 1

### INTRODUCTION

#### 1.1 MAPPING THE TERRAIN OF THE INVESTIGATION

##### 1.1.1 Statement of purpose

The aim of this investigation is to explore and give an interpretation of the role that career maturity, career knowledge and self knowledge play in choosing a viable career path. The investigation looks specifically at psychology honours students in a South African institution of higher learning. The focus on fourth year (honours) students is motivated by the understanding that this grouping occupies a critical space of transition in the career journey of someone pursuing a qualification within the profession of psychology. This period is characterised by the complexity of negotiating and managing different kinds of effective inclusions into Masters Programmes in institutions of higher learning, the labour market or both. Not only is this space of transition complex, but it is also a crucial moment for making and testing career choice decisions in order to carve an effective work identity. The decision that individuals ultimately make is therefore critical in determining the outcome of their lives. It is through the process of career development that an individual fashions a work identity. For this reason, the impact that career development has upon students at their fourth (honours) year of study is long-term and inestimable.

Career decision-making is an important aspect of career choice and career development. Possible limited learning experiences, levels of career maturity, career and self knowledge mediate the career decision-making process. Recognising that vocational or career choice is influenced by career maturity, the extent to which one demonstrates knowledge of self and understanding of the pursued career, it becomes imperative to investigate how these factors shape career decision-making particularly among honours students studying at a South African institution of higher learning. The importance of guiding students to explore and navigate through the decision-making process also becomes a central issue in the field of vocational counselling. The counselor's role in facilitating career development remains a dynamic one and is influenced by

new opportunities presented by the changing workplace, the dynamics of entering the workforce and expanding lifestyle options among other factors. Against this background, the following discussion captures some of the author's own experiences as a tutor working in the department of psychology at a South African university in order to create further context around how the investigation came into being.

### **1.1.2 A reflexive note**

Choosing a career path illustrates the manner and extent to which a person is involved and committed to designing, styling and creating his or her world. In this way, a person determines the outcome of his or her life. In a similar fashion, research and the process of investigation embodies the same creative qualities that gives birth to various products amongst others texts like a thesis. This implies that the context of investigation involves an intersubjective element that makes it necessary for researchers to also give account of how they shape the research process in whatever small way this influence might be. Acknowledging that it is important to understand the researcher's context and what motivated the investigation, I briefly reflect on some of the early issues that I grappled with in the formative stages of this research project in order to further ground the focus of the study.

As a way to position the context of my thinking and the multiplicity and types of information with which I have come to understand and value career developmental issues and importance of career counselling itself, I offer the path of my history related to this research project. The intention of this account of the path on which I have travelled serves to highlight the intentional focus on psychology and career decision-making among psychology honours students.

This study was inspired by my experiences as a tutor in the Department of Psychology in an institution of higher learning in South Africa where I worked for a period of two years. Within this context, tutors are frequently called upon to help students with their career-related questions and concerns. I was often confronted with hard and challenging questions that placed demands on me to play the role of a career counsellor instead of focusing on course content-specific issues. Some of the issues that psychology honours students brought to the tutoring sessions revolved around seeking clarity on what they can do with a psychology degree and the kinds of

employment opportunities available for a psychology graduate. Equally important was a need for clear guidelines on what they could do to improve chances of being selected to Masters Programmes. Other concerns centred on lack of proper knowledge regarding career options available to students with an honours qualification. Even though some of the questions had merit, they also caused great discomfort for me as a tutor who was also engrossed in postgraduate studies at that time. What was startling for me was that at an honours level one expects these issues to be somewhat sorted out as students are regarded to be in their senior phase. It was difficult to align the sameness of the concerns expressed by honours students with those of their first year junior counterparts.

As I began to (re)formulate plans for working with the students I engaged career development theories in order to conceptualise the concerns that I encountered more clearly. Studies have shown that more than 50% of university students experience career related problems (Talib & Aun, 2009). Some of the problems are related to being undecided on career options, which is often a source of anxiety for students in their first year of study. In addition, lack of confidence and insufficient knowledge of work, according to Talib and Aun (2009), tend to affect the quality and degree of career exploration capabilities of students in their junior years of study. Suggested in Talib and Aun's (2009) ideas is the assumption that career choice is a developmental task with specific age-related competencies and as such senior university students who should have crystallised and specified their options. As it were, it was not clear whether the problems and concerns that the students were presenting with were due to lack of career knowledge, poor self insight or low levels of maturity. The following section discusses the significance of the study by problematising career decision-making and exploring the broader locality within which the study is conducted.

### **1.1.3 Problem statement and significance of study**

Good and effective career decision-making is influenced among other things by the type of answers to personal and career development questions that an individual aims to find. En route to successfully choosing a career path, students have to face a series of questions which relate to best fit between personal interests and the career field. Students also have to tackle uncertainties relating to finding an appropriate job setting. An additional set of questions involve how to

capitalise on a set of diverse experiences which they possess and define occupational and personal plans. The latter involves the readiness and ability to draw on personal resources like knowledge and skills and aligning these with expectations from social surroundings. Pickworth (1997) defines this aspect as career maturity. The former two issues tap into; first, the insight that a student exhibits in relation to character traits and how this intersects with the career of choice (self-knowledge); and second, the information at the student's disposal on possible career option (career knowledge).

Substantial research has explored the psychological basis of personal and career development questions by investigating the influence of attitudinal factors and cognitive strategies on good decision making processes (Bassili, 2008). Even though research has investigated the role of career maturity on career development, there still exists an unintentional modest focus on how career knowledge and self knowledge intersect with career maturity to shape career decision-making. Bloch (1989) for example, introduced the concept of career knowledge to explore the relationship between career information and career development. He argued that there was a need for a triadic model that encompasses self, search (occupational exploration) and synthesis (integration) which could be applied to all stages of the career development process. According to Momberg (2004), Parsons' Trait and Factor Theory (as cited in O'Shea, 1984) advocated, in a similar vein to Bloch the importance of the knowledge of self, knowledge of occupations and the integration of the two. Career information has since been a major component of most career development theories. McDaniel and Snell (1999) advocate the important of career information by stating that most career counselling services educate individuals concerning career options and the world of work by providing information on occupations and encourages individuals to use this information in locating occupations that are consistent with their individual characteristics.

While a psychological focus is meaningful in helping us understand the mental and emotional processes involved in choosing a career, personal and career development questions also stem from the societal context in which people live (Guichard, 2003). Most research endeavours on career development reflect an unrelenting focus on European and Western, particularly North American, experiences. The definitions that societies give to career-related issues and questions

have consequences on two levels. Firstly, questions related to career development differ from one culture to another. The questions that a society submits to individuals regarding their fundamental life choices are likely to differ significantly in “individualistic” (where the ties between individuals are relatively loose) and “collectivist” societies (where people are integrated into strong, cohesive in-groups). Secondly, questions around educational preparation of students for the job market and career development tend to evolve along with the contexts in which they are expressed. This is particularly so in industrialised societies (Guichard & Lenz, 2005). In tracing the influence of industrialisation on how career development questions have evolved in Western societies during the early twentieth century transitions, Guichard and Lenz (2005) indicates that a key focus was on helping young people find a suitable apprenticeship. The focus shifted in the late 20<sup>th</sup> century as work organisation and employment distribution and the development of schooling and school systems transformed. These examples illustrate the importance of conducting research projects that are not only culturally relevant but also capture contextual specificities and dynamics. This need is more poignant within the Southern African and Africa regional continent in general.

Research conducted on career decision-making tends to be generalised to all professions or vocations. It is mostly thought that people go through the same decision-making mechanisms when making career decisions. The argument advanced in this thesis is that there are professions that require different decision-making processes due to the unique career journey imposed on the potential incumbent. Psychology qualifies as one such profession. As noted, in order to qualify as a psychologist in South Africa, one has to successfully fulfil the requirements of a Masters degree after first going through competitive selection processes embedded during the entry phases into a Masters Programme. The context of selection into a Masters Programme reinvigorates and makes issues that relate to the choice of a career and culmination of this choice into a work situation, the development of competencies, and coping with transitions occurring in the student’s personal and vocational life even more problematic. Therefore, it is important for students to be aware of what is required to become a psychologist and have alternative plans if selection attempts to a Masters’ Programme are unsuccessful.

## **1.2 BACKGROUND TO STUDY**

A person can never exist in isolation from his or her world. Context dictates a number of things ranging, for example, from the decisions we make concerning our lives and influences how we think about and conduct our lives. One of the heuristic devices that allow us to explore context and how phenomena uniquely materialise in context specific settings is by looking at historical issues. This condition makes it almost difficult to explore career decision making among psychology honours without considering South Africa's historical past. In order to do this, the following section provides a cursory synopsis of the socio-political influences on the field of psychology in South Africa focusing specifically on the legacy of South Africa's Apartheid project and how it has shaped the discipline of psychology and the influences it has had on higher education.

### **1.2.1. Field of psychology in South Africa after 1994**

In the last decades of the twentieth century, South Africa witnessed radical political transformation which culminated in the first democratic elections of 1994. This period in the history of South Africa ushered in an important era of transformation on many levels for the South African society (Macleod, 2004). One of the areas in which transformation has occurred is in education. Prior to the democratic dispensation, education was one area of society that was used by the previous apartheid government to force racial segregation and control access as well as the quality of education that individuals could receive (Msila, 2007). It is important therefore, to keep reflecting on the legacy of South Africa's past to take stock of how career decision making and, more broadly, career development has been shaped by political ideologies within the education system.

Racial inequalities were built into the quality and level of teacher training, resources allocation at schools, location of schools, support materials, and almost all aspects of the educational delivery system (Naicker, 2000). Education in this sense became a vehicle through which the oppression of certain segments of society became entrenched through education policies like the 1953 Bantu Education Act (Hlatswayo, 2000; Hyslop, 1999). This system of education was designed in order to fit Africans in a role designed for them in apartheid. Curricula were as such intended to teach African learners to be "hewers of wood and drawers of water" and thus prepare them for manual labour (Baard & Schreiner, 1986).



The field of psychology has not always been seen as progressive by the broader South African population. This is as a result of its strong link to the maintenance of oppression and domination during the Apartheid era (Wilson, Riecher, Durrheim, Surrendorf and Asafo-Agyei, 1999). According to Macleod (2004), South African psychology has been accused of ignoring the relationship between individuals and the socio-political contexts in which they live by avoiding to deal with issues such as class, encouraging inequalities in the mental health service provision. As a result, there was a general lack of constructs for dealing with processes of change and culture was viewed in a mechanical way. This has seen psychology fielding accusations of assisting to maintain the status quo of the apartheid era and allowing discrimination and inequality to flourish in South African society. Consequently, psychology's affiliation with the apartheid regime led to a call for the field to become more suited for the new democratic South Africa and to transform its teaching priorities in order to correct the disparities of the past (Stead, 2002; Stead & Watson, 2006). In addition, psychology has historically been known to represent a segmented group of people who were mostly men, white, and middle class and that reconstruction of this field is not only necessary but essential (Watson, & Stead, 2002). Recent developments in national transformation initiatives of the education system include the separation of the department of education into two separate spheres: department of basic education and department of higher education.

Psychology is also one of the careers disciplines that has been forced to undergo rapid changes and continues to evolve in accordance with emerging needs of society (Parker, 1997; Wilson et al., 1999). For example, new registration categories have been and continue to be developed in the profession so as to deal with the ever changing and evolving needs of the South African society. However, even with the various reformation and changes to the educational system we are still gripped by many changes. As Morrell, Eptein, Unterhalter, Bhana and Moletsane (2009) state the realisation of equality, for example, in education remains a difficult project as reflected particularly in everyday lives of students which continue to be marked by continuing social-economic inequalities.

The majority of research that has been conducted on the field of psychology in South Africa has focused on the changing nature of psychology as a profession and discipline (Richter, Griesel, Durrheim, Wilson, Surendorff, Asafo-Agyei, 1998). For example Wilson et al. (1999) conducted a study on the changing nature of psychology in terms of where the profession is headed, its role and relevance in the South Africa. Some of the issues that have emerged in the debates aimed at responding to the national transformation agenda involve the pursuit of themes that focus on empowerment, emancipation, transformation and activism in the pursuit of social justice and process of social change (Suffla & Seedat, 2004). Other studies have focused more on the needs and impacts of restructuring psychology to suit the current needs of the South African society (Wilson et al., 1999). Restructuring of the profession would include the shift from a focus on mental testing and its neutrality on issues of discrimination and social inequalities to a more liberatory, critical psychology that serves to empower communities and society at large (Painter, Terre Blanche, & Henderson, 2006). Therefore, there is a general call for the profession of psychology to be relevant by reflecting the current socio-political realities of the South African society.

The changing tides of psychology as well as the changing times, requires self reflection in the field of psychology. There is a need to determine the relevance of psychology in industry, in the organisational arena as well as the mental health service areas. It is vital to look at these areas as the nature of the labour market changes in order for the field of psychology to make meaningful contribution to society (Richter et al., 1998). According to Wilson et al. (1999) job opportunities are greater for individuals who have skills that are easily transferable from one task to another with a need for general skills to complement more specific psychologically based knowledge. Bonn, Janeke and Kruger (2009) report that psychology students do not always have the skills that the labour market requires because the psychology curriculum does not adequately prepare them for that. Therefore, it becomes even more important that the field of psychology provides good and adequate career and employment opportunities for its students by taking into consideration the changes that are occurring in South Africa as well as around the world.

### **1.2.1 The challenge of student numbers in psychology**

Psychology is amongst the popular courses that students enrol in and continues to attract a lot of interest from potential students. It has been estimated that every year thousands of students enrol for studies in various disciplines of psychology in South African Universities (Wilson et al., 1999). According to Richter et al. (1998) there has been a rapid growth in the field of psychology from mid 1970's to 1993. In 1993 about 8% of the total number of students studying at South African Universities had psychology on a first year's level. This illustrates that psychology occupies a large number of the undergraduate student population in South African Universities. Although there are many students who have psychology as a major in South Africa, there is still a shortage of psychologists in the social services sector (Wilson et al., 1999). In a study conducted by Bonn et al. (2009) at a South African University among honours students regarding perception on job related field, a majority of the participants indicated being employed in education specifically in the counselling sector, teaching support staff, or involved in education and training in human resource settings. This raises questions regarding students' initial career plans or aspirations and where they ended up. Bonn et al. (2009) further states that although the psychology curriculum places a lot of emphasis on health and clinical applications of psychological knowledge, only 7,6 per cent of participants managed to find work in this sector. Against this background, it becomes imperative to investigate career decision-making processes among honours students. Questions arise pertaining to whether students are aware of what their curriculum entails before they pursue a career in psychology.

### **1.2.3 Career path determinants: Practice frameworks and employment prospects**

To practice as a psychologist in South Africa, one needs to have completed a Masters degree. This takes approximately two years to complete (Wilson et al., 1999). The first year consists of course work and the second year consists of a 12 month internship, where the students do practical work at an approved institution (Wilson et al., 1999). All psychologists must be registered with the Health Professions Council of South Africa (HPCSA). As stated above, to become a psychologist, training takes a minimum of 6 years, however it must be noted that there are a limited number of registration categories that one can register for. There are currently five categories of registration in the field of psychology in South Africa. These categories consist of Clinical, Counselling, Research, Educational, Industrial Psychology (Richter et al 1998). Recent

developments include the inclusion of neuropsychology as a registration category (HPCSA, 2009).

Each category has its own scope of practice and these are discussed in the following section: Clinical psychologists assess, diagnose, and intervene in order to alleviate or contain relatively serious forms of psychological distress and psychopathology, or what is commonly referred to as "abnormal" behaviour; counselling psychologists assist relatively well-adjusted people in dealing with normal problems of life concerning all stages and aspects of a person's existence in order to facilitate desirable psychological adjustment, growth, and maturity; educational psychologists assess, diagnose and intervene in order to facilitate the psychological adjustment and development of children and adolescents within the contexts of family, school, social or peer groups and communities; industrial psychologists apply the principles of psychology to issues related to the work situation of relatively well-adjusted adults in order to optimise individual, group and organisational well-being and effectiveness; research psychologists address any of the above professional categories, not to render services to the public in that field, but to apply research methods (HPCSA, 2009).

The limitation in the registration categories and selection procedures contribute to declining numbers of psychology enrolments. As stated earlier, possible reasons for the decline in psychology enrolments may relate to the difficulty in obtaining employment that comes with only having a psychology degree or honours degree (Wilson et al., 1999). As stated by Moleke (2006), most employers are reluctant to offer jobs to humanities and arts graduates due to the general nature of their degrees. This makes it difficult for employers to know the exact skills that these graduates possess. Wilson et al. (1999) indicates that only about 2% of the job advertisements in 1996 indicated as looking for psychology graduates. Limited job opportunities might contribute to the loss of human resource potential from undergraduate to postgraduate qualifications in psychology (Wilson et al., 1999).

According to studies conducted on the employability of psychology graduates, Akhurst (2009) found that 90% of the psychology graduates found employment in the first 6 months after graduation, however, almost a third of these graduates were not in graduate level employment

thus under-employed. According to the American Psychology Association fewer than 5% of the psychology BA recipients were employed in psychology or a field related to psychology in 1997 and 1998 (www.apa.org). Bonn et al. (2009) found that although psychology graduates do find jobs in diverse sectors, there is a general feeling that a psychology degree does not result in a specific employment track.

Richter et al. (1998) noted that the current undergraduate curricula did not prepare students for the employment demands and that there are limited employment opportunities for the psychology graduate. This concurs with research conducted by Moleke (2006) which found that the humanities and arts graduates had the lowest percentage of employment compared to other fields such as the economic and management field or the engineering field. Reasons that employers offered for the non employability included the fact that the students were either under qualified or over qualified (Baartman, 1998). The fact that these students did not have practical skills also limited their chances of being employed in that most companies are not prepared to train employees and use their resources on these individuals (Moleke, 2006). Yorke and Harvey (2005) provide a summary of attributes that employers seek when recruiting graduates as obtained from numerous studies and include; oral and written communication, self-management and being able to work independently, team work and interpersonal skills, creativity and curiosity, planning, organising and ethical practices. However, employers are not always able to detect these skills in psychology graduates and therefore it affects their employability.

Most of the research conducted in South Africa with regard to employment trends has focused on the general human sciences employment trends (Richter et al., 1998). In recent studies conducted on employment experiences of South African graduates, Moleke (2006) found that humanities and arts students have lower employment prospects and take longer in finding employment. He also found that humanities and arts students (78%) are the lowest about to find jobs related to their fields and that 23% of them worked in field unrelated to their fields of study (Moleke, 2006). Most of the students felt that they were not prepared for professional careers because of the general nature of their degrees and 33% of these students had limited labour market prospects due to the general nature of degree (Moleke, 2006). About 41.9% of the students who decided to study further in humanities and arts changed their careers to increase their chances in the labour

market Moleke, (2006). However, there are no statistics indicating how many psychology students changed their careers or field of study to increase their chances of obtaining employment prospects.

As stated by Baartman (1998) employment opportunities are scarce for inexperienced psychology graduates however, this also depends on the mind-sets of students after completion of studies. According to Baartman (1998) there are students who refuse certain positions as being below their expectations while there are others who take on such positions as learning and training experiences and work themselves up from such positions. This may pose as a dilemma for many individuals.

According to Wilson et al. (1999) the employment trends in South Africa have been influenced by both national and international aspects. Legislation such as the Employment Equity Bill has on a nationally level influenced graduate and employment trends and most importantly it has affected employment trends for psychology and humanities graduates (Wilson et al., 1999). This can mostly be attributed to the ever changing labour market trends that are not only affecting South African but all around the world. However, in the United States, psychology degree and graduate holders are opened up to a wider variety of careers and employment opportunities than there are in South Africa (Kuther & Morgan, 2007).

Moleke (2006) states that students often begin their university studies with the hope that higher education will afford them to get employment after completion of studies. Matriculates often choose areas of study as a result of the perceptions that they have on the labour market, prior education and the students' access to an institution of study (Moleke, 2006). Therefore, these particular students might end up making career decisions based on inadequate information and knowledge leading to unsuccessful careers and poor employment opportunities.

Most of the studies that have been done on decision making have focused on factors such as career counselling and decision making (Cassidy, 2008); influence of gender on career decision making (Kushwaha & Hasan, 2005); career decision-making and self-efficacy (Du Toit, 2005). Although this has contributed a lot to the career development field there is an urgent need to

focus on how self and career knowledge impact psychology students' career decision processes in order to establish the impediments to constructive career decision-making.

Research on psychology students' decision-making has not been given adequate attention. As indicated above, one needs to have a master's degree in order to register as a psychologist; however, this does not stop students from registering in this field. A large number of students who enrol for the degree do not eventually end up as psychologists. This leads us to question why so many students still register for a field which has limited opportunities and in which inherent difficulties exist in terms of qualifying to be a psychologist. Are these students actually aware of the challenges that lie ahead? Do they really know what is required of them in order to become psychologists? Do they have realistic goals as well as alternatives? These questions are crucial and therefore require adequate attention.

Against the background that has been provided in previous sections, the purpose of this study is to explore career maturity, career knowledge and self knowledge among psychology honours students. The career development questionnaire (CDQ) was used to assess students' career maturity whereas the career decision-making difficulties questionnaire (CDDQ) was used to assess career knowledge and self knowledge.

### 1.3 OPERATIONAL DEFINITIONS

**Self knowledge:** In this study, self knowledge is defined as “insight into one's personality which enables him to know what he is capable of” (Mbetse, 2002, p. 83).

**Career knowledge:** This concept is understood in the context of the study as knowledge that relates to possible career options (Barker & Kellen, 1998). Career knowledge, according to Stead and Watson (2006) relates to the knowledge base that individuals have about career alternatives that are available to them.

**Career and/or vocational maturity:** This refers to “the individual's readiness to cope with the developmental tasks with which he or she is confronted with because of his or her biological and social developments and because of society's expectations of people who have reached that stage

of development” (Pickworth, 1997, p.17). Career and vocation are used interchangeably throughout this study.

#### **1.4 OVERVIEW OF CHAPTERS**

The following chapter (**Chapter 2**) discusses the literature review. In this review, main concepts and theories that explain career decision-making and development are reviewed. Specific emphasis is placed on Donald Super’s developmental career theory. Parsons’ and Holland’s theories also form part of the literature reviewed on career development.

**Chapter 3** provides a detailed description of the research methodology used in this study. This includes the research design, data gathering techniques, population and sampling, measuring instruments and the statistical analysis used for this study.

Research results are presented in **Chapter 4** and **Chapter 5** discusses the findings, limitations, recommendations and provides a general conclusion of the study.



## CHAPTER 2

### LITERATURE REVIEW

Choosing a career has become a daunting task that requires an individual to consider many factors that people never had to deal with. The previous chapter laid the foundation for the study by introducing the research problem and discussing the significance as well purpose of the study. In this chapter, career decision making concepts and theories are discussed. Therefore, the main variables: career maturity, career knowledge and self knowledge are discussed.

The following section will focus on the changing nature of careers, the world of work and how these changes have influenced career decision making. Career development in South Africa will be discussed next.

#### 2.1 THE CHANGING NATURE OF CAREERS IN THE WORLD OF WORK

Technological advancements and general changes in the global market are changing our perspectives of boundaries or work and therefore affecting our career decisions (Barker & Kellen, 1998). As Roberts (2006) states rapid changes in the labour market have caused increased uncertainty and instability in people's careers. Therefore, the career decisions that the youth of today have to make are different from those that young people in the 1960's and 1970's had to make (White, 2007). The increases and access to higher education have also expanded ambitions that people have which in turn has led to changes in the employment patterns of people as well as their expectations of their capabilities (Woodd, 2000). As a result of the ever evolving nature of the world of work, individuals constantly face challenges that impact their career.

South Africa has not been immune to the global changes that are happening in the world of career and work. Since 1994, the South African economy had undergone significant changes were government had put in place policies to redress the inequalities of the past as well as integrate the South African economy with that of the global economy (Oosthuizen & Bhorat, 2005). Between 1995 and 2002, employment in South Africa expanded from 9.5 million to just

over 11 million, an increase of around 16% and equivalent to a growth rate of 2.1% per annum (Oosthuizen & Borat, 2005). In general, employability in South African has grown and individuals can now seek employment in industries in which they previously could not. This in turn has implications for the labour market in terms of capacity. As a result of these advances career development in South Africa has had to reflect upon its role in society. For instance, the career seeking behaviors that individuals are engaged in as a result of the above mentioned changes has required a new lens of viewing and understanding career development.

Research shows that occupational aspirations of disadvantaged students are poorly matched with the labour market trends which contribute to unemployment problems and in turn pose a huge problem for career development in South Africa (Stead & Watson, 1998). One of the major reasons that have been attributed to poor career seeking behaviour (especially within disadvantaged groups) is lack of access to relevant information on careers and the labour market (Watson, Stead & de Jager, 1995). As a result of lack of access to information, disadvantaged students tend to engage less in career exploration and may sometimes have unrealistic aspirations. De la Rey (1999) argues that apartheid policies contributed to the general lack to resources and information as educational policies were designed to maintain a racially, politically, socially, and economically divided structure. As indicated in the previous chapter, disadvantaged groups were restricted to the type of education and employment that they could pursue which consisted mainly of manual labour (Kay & Fretwell, 2003). The Vocational Education Act No 70 of 1955 amongst others, for instance, excluded Africans from attending technical colleges in South Africa. This ensured that the idea of career choice remained an illusion for many indigenous black South Africans. The sociopolitical conditions of the times, according to Mathabe & Temane (1993) limited career aspirations of many black South Africans.

The study of career development in South Africa must always keep in mind the influences of both political and economic systems of apartheid (Watson, et al., 1995). The democratic transition, which advocates for equality in all spheres of life, did not bring about total eradication of unemployment and occupational problems experienced by previously disadvantaged groups. Although these issues are important to interrogate, engaging them at length is beyond the scope in this study. This is touched on briefly to create context in this study.

## 2.2 CAREER DEVELOPMENT IN SOUTH AFRICA

The origin, growth and transformation of career psychology in South Africa have been influenced by two main forces: mainstream psychology and the wellspring of vocational psychology in the United States (Stead & Watson, 2006). For instance, most of the widely accepted career theories in South Africa (such as Holland's and Super's career theories) emanate from the United States and have been developed on a sample of white, middle class men, thus the use of such theories might not be valid and/or relevant for application in different contexts (Stead & Watson, 1998). However, although most of the vocational theories that are being used in South African are Western and European theories, there have been some local developments in this area (Stead & Watson, 2006). Authors like Mathabe and Temane (1993) suggest that the impact of the individual's external structure on career development and choice is significantly more elevated than the person's internal structure. In other words, understanding the change in South African culture and society in general becomes critical when considering career development of individuals. This places a strong emphasis on advancing career development with specific emphasis to viewing individuals as entities who exist within a social, economic and political context. Therefore the use of career development theories have been largely criticised because they tend to reflect western values and are not appropriate for local use because of the vast differences in social and cultural factors. For example, Collin (2006) advocates that career theories are not constructed in a vacuum but rather constitute social, cultural and economic conditions, as well as ways of thinking of people in specific contexts.

Culture is an important concept in career decision making. Watson et al. (1995) states that career development may differ between whites and blacks in that traditional black culture may still be a part of every life for many individuals. This implies that culture may have a strong impact on individuals' career decision making processes. Stead (2004) advocates that specifically with career theories, concepts such as self concept, self efficacies (which are central in career development) should be culturally determined, examined, adapted accordingly because they do not have universal meanings across cultures. For example, cross-cultural studies have shown that Asians tend to be more self criticizing than Americans who tend to be more self-enhancing (Mau, 2000). This has been linked to the cultural contexts in which these individuals live that emphasize certain aspects of individuals than others. Cole (as cited in Stead, 2007) refers to the

development of certain cultural schemas that make up the meaning systems of certain cultures in terms of how they view careers and career decision making. Therefore, schemas determine what aspects of career decision-making are important and must be given greater attention in the career decision-making process. Claassen (as cited in Foxcroft, 1997) persuasively argues about the state of cultural sensitivity in the South African context by pointing out that

“South Africa is not simply a multicultural society, it is a multicultural society in which acculturation of many kinds is taking place and in which a new nationhood is actively encouraged by political authorities. The cultural distance between cultures and subcultures vary and cultural distances are not the same for various facets of behaviour. The meanings of behaviour differ and the values attached to certain kinds of behaviour differ as well” (p.232).

Therefore, development of theories should always be done in such a way that sensitivity to local contexts is given the outmost importance. Although some of the western theories have been adapted for the South African context, there is still a great need for the development of theories that are unique to South Africa. As much as Western theories have provided a very important foundation and framework of career theories, more needs to be done for the advancement of career and vocational research in South Africa. This research therefore attempts to contribute to debates that call for contextually relevant studies that capture local realities.

Having explored career development in the South African context the following section discusses the concepts that are relevant to generate an understanding of career decision making and theoretical underpinnings of career development.

### **2.3 CAREER DECISION-MAKING**

Research indicates that career decision-making among students in contemporary society has not been well understood (Dzuiban, Tango & Hynes, 1994). There have been certain factors that have been identified as contributing to career decision-making among young people. Baumgardner (1982) describes disillusionment in career decision making processes among students as being high and attribute this to situations where students and academia are caught up

in a dilemma brought about by changes in the working world and changing economic trends. These changes contribute to students evaluating their college education in terms of the market value often leading to students making unrealistic and idealized career plans (Baumgardner 1982).

According to Donahue (2006), the career decision making process involves six tools. These include engaging in making a choice and knowing that one needs to make a decision and thinking about it; understanding one's self and one's options; identifying, expanding and narrowing a list of possible options; deciding on a study plan or occupation; acting on or implementing the plan; and finally, reflecting on decisions made and knowing that one has made a good choice.

Langley's comprehensive model of career development (as cited in Mbetse, 2002) also proposes similar tools that may assist young people in making successful and appropriate career decisions. These tools consist of identifying needs; evaluating life roles; identifying interests; identifying other relevant factors relating to personal or socio-cultural factors, for example; evaluating career maturity; evaluating decision-making ability; obtaining career information; integrating self information with career information; making a career choice and finally planning one's career.

According to Harren's decision-making theory (as cited in Bimrose & Barnes, 2007) which was developed from career decisions made by college students, there are three career decision-making styles:

- (1) The rational style where individuals adopt a logical and systematic approach to decisions
- (2) The intuitive approach where there is more reliance on internal affective states in decision making processes
- (3) The dependent style where decisions are contingent upon the reactions of friends, family, and peers.

### **2.3.1 Barriers to career decision-making**

Research has identified certain barriers that are common in the career decision making process among students. Some of the barriers identified include, interests, values and abilities which are

perceived as important personal factors in career decision making; direct and vicarious work experience which influenced expected career choice of students (Lent, Singley, Sheu, Schmidt & Schmidt, 2007). As a result of these barriers, there is need for support in practices of exposing students to career exploration activities that would enable them to clarify their interests, values and abilities in relation to the occupation field of their choice. Financial concerns, negative social family influences, role conflicts, personal adjustment difficulties and ability limitations, impend on student's career choices and therefore such factors are seen as negative influences on career decision making processes (Hoffmann, Jackson & Smith, 2005). Factors that were identified as support factors in research conducted by Lent, Brown, Talleyrand, McPartland, Davis, Chopra, Alexander, Suthakaran & Chai (2002) included; social support and encouragement from friends, family and teachers; role models or mentors and financial resources; personal strengths such as self confidence and perseverance and goal setting.

Creed, Patton and Bartrum (2004) have identified certain internal and external factors as acting as barriers to career decision-making. According to Mau (2004) internal conflicts such as lack of confidence, low motivation, and external factors such as lack of access to education and poverty may affect decision-making. Moreover, ethnic and gender discrimination, financial problems, family attitudes, perceived lack of ability and lack of educational opportunities have also been cited as acting as barriers to career decision-making (Punch, Creed & Hyde, 2006). According to Harren (as cited in Julien, 1999) barriers occur when people do not know what information is needed, where to find relevant information, when there is a lack of awareness of sources of information, when sources of information needed are non-existent, when there is a lack of communication skills, self confidence or ability, discouragement by sources approached for information, delays encountered in information seeking, and inaccurate or inappropriate information received and information scatter.

According to Morgan and Ness (2003) factors that might also contribute to barriers in career decision-making include career indecision. Career indecision includes:

- **Lack of readiness.** Factors that contribute to lack of readiness include lack of motivation to begin the process of decision making. General indecisiveness that permeates all types of

decision making and beliefs in dysfunctional career decision making myths, for example, that career decisions are best made by experts are also some of the factors that illustrate lack of readiness.

- **Lack of information and inconsistent information.** Factors in this domain include lack of information about what entails career decision making process (for example not knowing how to optimally make career decisions). Poor self knowledge regarding one's capabilities, interests or personal traits serve as some of the issues relating to lack of information. Included in this category is limited information about occupations and what is involved in these occupations as well as various options that are available; and finally, lack of information about the ways in which one can get career information. Inconsistent information often influences career indecision. This inconsistency is often due to unreliable information that students have. Inconsistency is also influenced by internal conflicts or difficulties that the individuals might have (for example, relating to evolving personal identity) and external conflicts which might involve significant others.

In order to combat some of the barriers mentioned above certain coping mechanisms have been identified as being helpful in career decision-making. Coping mechanisms that were identified by Lent et al. (2002) in the career decision making process included direct problem focused coping and social support seeking; financial strategies for example soliciting loans; cognitive restructuring (acknowledging that everyone is different and have different abilities) and cognitive reframing (using ones family situation as a motivation to work harder).

Choosing a career and facilitating career development remains dynamic as lifelong learning, expanding lifestyle options and the changing workplace presents new opportunities. There are a number of theoretical voices directing the career development journey. The following discussion explores a few of the most influential theories that have contributed to vocational psychology.

## **2.4 THEORETICAL VOICES ON CAREER DEVELOPMENT**

Career theories are used to understand how people come to make career decisions. According to Stead and Watson (2006) career theories enable us to understand and hypothesise about career

behaviour and choice by providing us with parameters. It also allows us to predict behaviour and what may possibly impact future career choice (Stead & Watson, 2006). Career can be defined as “the evolving sequences of a person’s work experiences over time” (Woodd, 2000, p. 273).

Career theories can be divided into two domains. The first is that of structural theories which aims at explaining career development by focusing on individual characteristics and occupational tasks. The trait and factors theory as well as Holland’s theory fall within this domain which focuses on the influence of personality on career decision making. Secondly the developmental theories tends to take on a long term developmental perspective in which the individual’s goal is to master successive stages of life in order to progress effectively (Coertse & Schepers, 2004). Super’s theory falls within the developmental domain. Super’s theory, which looks at maturity as an evolving concept provides an appropriate framework for this study. Super’s theory is discussed further in subsequent paragraphs in the chapter.

There have been many theories that have been developed to explain the phenomena of career development. Most of these theories often have their focus on particular aspects of the human dimension. For example Donald Super’s focus on developmental aspects of career development has been influential in the field of vocational psychology for many years (Vondracek & Porfeli, 2002). As stated earlier, there are little or no career theories that have been developed for the South African environment. Most of the career theories that are used in South African have been adapted from Western theories. There has been some criticism towards the use of these Western theories, for example Super’s developmental stages have been criticized for not reflecting career paths of black youths and therefore needs refining (Stead & Watson, 1998). Further criticisms relates to the fact that most of the assessment instruments that are used in career research may be value laden and thus not reflect the South African population, and that the construct validity of most international assessment instruments show mixed findings on the factor analysis and are therefore problematic (Stead & Watson, 1998). As a result of this, there has been a call for the development of appropriate theories for the South African context.

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The following section will discuss some contemporary career theories that have dominated the field of vocational psychology in South Africa. The first two theories to be discussed are based on the structural perspective of career development (Trait and factor theory and Holland’s vocational theory). The Social Cognitive Career Theory will then be discussed, followed by the developmental theory of Donald Super. As previously indicated, Super’s theory is utilised in this study to make sense of the data.

#### **2.4.1 Trait and factor theory**

Parsons (as cited in Patton & McMahon, 2006) is often regarded as the founder of vocational psychology and his model for career decision-making remains essential in the vision of career development and counseling (Hartung & Blustein, 2002). Trait and Factor Theory sees vocational guidance as a process that requires rational decision-making in which individuals are matched to make the best fit with a specific career (Patton & McMahon, 2006). The main concept in Parsons’ theory (as cited in Osepow, 1976) is that of ‘matching’ which states that occupational choices occur when an accurate understanding of individual’s traits (for example, personal abilities, aptitudes, interests, etc), a knowledge of jobs and the labour market, and the rational and objective judgement about the relationship between these two groups of facts is present. Langley, du Toit, and Herbst (1996) go on to state that a close match between a person’s traits and his/her occupational profile will positively correlate with occupational success and satisfaction (Coertse & Schepers, 2004)

The main assumption of the Trait and Factor Theory is that it is possible to measure individual talents and attributes required in particular jobs and that these two can be matched to produce a good fit therefore ensuring that individuals are in jobs that are best suited for their abilities (Heussen, 2001). This leads to good and productive performance. Therefore, according to Parsons (as cited in Momberg, 2004) the three steps needed to match individuals and occupations successfully involve the following:

- A clear understanding of one's self, one's attitude, abilities, interests, ambitions, resources and their causes. This step can be described as the "trait" aspect and is characteristic of individuals who are making career choices.
- The second, aspect related to the knowledge that is required and conditions thereof of success, advantages and disadvantages, compensation, opportunities and prospects in different work situations.
- The third aspects is that of deliberations on the relationships between the previous two elements and by matching these aspects, a better matching of the individual to the work can be obtained (pp. 43-44).

As stated in Hartung and Blunstein (2002) Parsons' core values in his vocational model include that of guidance based on rationality and reason with service, concern for others, cooperation and social justice. Trait and Factor Theory has several assumptions; (a) every person has unique patterns of traits made up of interests, values, abilities and personality characteristics and these traits can be objectively identified and profiled to represent an individual's potential; (b) every occupation is made up of factors required for the successful performance of that occupation therefore, it is possible to identify a fit or match between individual traits and of factors using a straight forward problem solving or decision process, and; (c) the closer the match between personal traits and job factors the likelihood for successful performance and satisfaction (Heussen, 2001). Trait theorists are more interested in the measurement of traits that can be defined as habitual patterns of thought, behaviour and emotions. They also believe that these traits are relatively stable over time and therefore influence behaviour. ([http://wapedia.mobi/en/Trait\\_theory](http://wapedia.mobi/en/Trait_theory)).

As stated above the Trait and Factor Theory assumes that the best way of choosing a career or occupation is to know one's self and the world of work and thus integrate these two sets of knowledge and making an informed decision. Shearer also states that (2006)

...in the wise choice of a vocation there are three broad factors: (1) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations and their causes; (2) a knowledge of the requirements and conditions of success, advantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts (p.5).

Stead and Watson (2006) also state that Trait and Factor Theory assumes that knowledge of one's self as well as of one's work with its breadth of career opportunities would enable one to make more informed decisions. This is consistent with Barker and Kellen (1998) who advocate that acquiring information about oneself, as well as career opportunities and the relationship between the two will prepare one to make good and well informed career decisions. However, it is rare to find a labour market that functions in such a linear manner. The process of occupational choice is not a single event but is influenced by many factors for example, subject choices at school, socialisation and occurs over a period (developmental) to prepare the individual for career decision making (Miller, 2006). Contextual factors are largely ignored in this theory. Parsons' theory may be seen as limited in this regard. As stated earlier, the changing nature of the world of work requires that individuals adapt in order for them to have successful careers.

In summary, according to the Trait and Factor Theory, a successful career choice is determined by a balanced accumulation of career knowledge, self knowledge and the integration of the two. This theory clearly indicates the importance of self knowledge, career knowledge (knowledge of the world of work) and the integration of the two factors in career decision-making.

#### **2.4.2 John Holland's theory**

One of the most well known career theories is that of John Holland. Holland's theory of career development is an influential vocational theory in career development. Holland's theory emerged from the Trait and Factor Theory and assumes that individual's personality characteristics and occupational environment should correspond to ensure success (Momborg, 2004). According to Rayman and Atanasoff (1999) Holland's typology describes personal and work environment

characteristics that have utility in assisting individuals to understand personal and environmental characteristics that lead to successful career.

Capitalizing on Holland's (1997) observation that individuals engage in career planning and problem solving with the use of a personal career theory (PCT), Reardon & Lenz (1994) noted that people may seek help when their PCT is no longer effective and they need assistance from an expert in the field. Therefore, the longstanding person-environment theories have a natural, heuristic value, because it can come down to a matching process for most people. This is very likely the reason that Holland's Self-Directed Search (SDS; 1994) has been translated into approximately 25 languages and is very likely the most widely used interest inventory in the world. The SDS is, however, not simply a person-environment matching device; it makes use of a client's occupational aspirations, seeks to identify multiple options for further exploration by clients, and uses raw scores in a simulation that can easily be understood and discussed by clients. In this sense, it also reflects a constructivist view of career development.

There are six premises that can be used to explain Holland's theory. This theory states that most people have one of the six personality types: realistic, investigative, artistic, social, enterprising and conventional (Armstrong & Rounds, 2008). These categories can be represented in the form of a hexagon which reveals the extent to which each of the categories correlate with each other. For example studies indicate that categories which lie close to each other in the hexagon are more likely to strongly correlate with each other than those who lie at a distance (Miller, 2006).

Individuals who fall into the realistic type are often practical minded, physically strong, like to work outdoors, have difficulty communicating feelings, dislike radical ideas, like to build or repair things, aggressive, like to create things with their hands and like activities requiring motor coordination and skill. The investigative type consists of individuals who prefer solving mathematical problems, do not like rules, like science, not particularly interested in working with people, original and creative, especially in scientific areas, independent, rational, try to understand physical work, curious, and are challenged by theoretical problems. Individuals who fall into the artistic type tend to be more self expressive, creative in artistic media (writing,

music, art), like to work alone, sensitive, don't like structure, unconventional, tense, need for individual expression, like to be original, and are often emotional.

Those who fall into the social category are concerned with welfare of others, responsible, get along well with people, express themselves well, sociable, like attention, tend to be popular, like to be a leaders, like intense relationships with others, and solve problems by discussing them with others. The enterprising type are good with words, enthusiastic, like leadership roles, adventurous, like to persuade others to a viewpoint, energetic, self-confident, don't like work that requires long periods of intellectual effort, like material wealth, like to work in expensive settings. The conventional types dislike work requiring physical skills, dependable, like to know what's expected of them, stable, prefer structured activities, good self-control, don't mind rules and regulations, know what is right and wrong, don't seek leadership roles, and like well-defined tasks (Smart, Feldman & Ethington, 2006).

Holland states that people of the same personality tend to stick together, working in a specific context, and create a working environment that fits their type (Myors, 1996). He also refers to six basic types of work environments: realistic, investigative, artistic, social, enterprising, and conventional. People who choose to work in an environment similar to their personality type are more likely to be successful and satisfied. How one acts and feels at work depends to a large extent on their workplace environment. Lastly, if you are working with people who have a personality type like yours, you will be able to do many of the things they can do, and you will feel most comfortable with them. Therefore, this means that one should probably choose an occupation whose type is the same as, or similar to, their personality type.

Holland provides a criterion that people can use to base their career decisions on by checking which personality type they fall in according to which best describes them. Individuals need to be aware of aspects of their personality (self knowledge) in order to determine where they fall. Therefore, one must be able to match their personality and compatibility with the work environment to ensure a successful and satisfactory career. Holland believed that career success largely depended on the congruency between the person's personality and the work environment.

Holland's premise of the immutability of individual personality traits and the necessity of matching them with occupational or academic environment to achieve success has been criticized. Feldman, Smart and Ethington (2004) argue that the emphasis on the congruency as criterion to judge success in explaining vocational interests and behaviors when the focus is on educational interests and behaviors might be problematic. Feldman et al. (2004) reflect upon the fact that historically educational institutions such as universities and colleges have sought to promote student growth and development of multiple and distinctive abilities and interest domain regardless of initial individual personality characteristics. Therefore, the argument centers on the question of immutability of characteristics as well as if such a concept is valid in the development of individuals.

Holland's theory has been tested and re-tested. One of the focus areas has been that of congruency, which can be described as reflecting the degree to which an individual's personal qualities match environmental demands in chosen careers (Miller, 2006). A number of studies conducted to test the congruency hypothesis (Alvi, Khan & Kirkwood, 1990; Gottfredson & Holland, 1990; Schwartz, 1992; Swanson & Hanson, 1998) indicate that congruency between preferences and occupational characteristics of individuals are positively related to occupational satisfaction. Using the Vocational Preference Inventory to assess congruency, studies have shown significant positive correlations between congruency with stability of career choices (Miller, 2006).

In summary, Holland's theory predicts that individuals will choose careers which are consistent with their personal characteristics, however, lack of self knowledge and career information might impede on making career choices which might lead to individuals making career choices that lie outside individual's dominant personality domains resulting in poor personality/occupational fit. Therefore, like Parsons' theory, it is vital that individual acquire the necessary career knowledge and self knowledge during career decision-making. This again illustrates the importance of exploring career knowledge and self knowledge. It is important to note though that personality characteristics are not stagnant but evolve as the individual develops. Therefore, it becomes difficult to predict that an individual's present match between personality traits and occupations

choice will be stable across their life time. As stated above, it may not always be possible for individuals to acquire work that compliments their traits (which are ever evolving).

### **2.4.3 Social cognitive career theory**

The social cognition career theory grew out of the social cognitive theory of Albert Bandura and addresses issues of culture, gender, genetic make-up, social context and unexpected life events that may interact with and influence the effects of career related choices (Lent et al., 2007). This theory focuses on the connection between self-efficacy, outcome expectations and personal goals that may influence an individual's career choice (Cervone, Shadel, & Jencius, 2001). The social cognitive career theory can be seen as an integrated theory of academic and career related interests, choices, performance and satisfaction (Lent et al., 2007). This theory highlights the interactive role people, environmental, behavioral variables play in the formation of career and academic interest and the translation of these interests into actual goals, actions and finally attainment (Chronister & McWhirter, 2003).

Lindley (2005) summaries the SCCT as a “comprehensive framework by which self-efficacy, outcome expectations, and goals interact with demographic variable, contextual factors, and life experiences to influence interest development, career choice and performance” (p. 30). The basic elements of SCCT include self-efficacy (the belief about one's ability to perform certain chores or behaviors), outcome expectations (the belief about the consequences of certain behaviors), goals (determination to engage in a particular activity or to produce a particular outcome) and finally contextual support and barriers (Lent et al., 2007). According to the first and second tenets (self-efficacy and outcome expectations), some people may hastily eliminate potentially rewarding occupations because of inaccurate self-efficacy, outcome expectations, or both (Lent & Brown, 2006). Therefore, people are encouraged to develop accurate perceptions of their occupational competencies and potential outcomes (Lent & Brown, 2006). The third tenet (goals) state that even people who have well developed interests in a certain career paths will not pursue those career paths if they perceive substantial barriers to entering that career (Lent & Brown, 2006). The fourth tenet (contextual support and barriers) stipulates that assistance in identifying occupational paths and overcoming barriers should be given by engaging clients to acquire new

experiences and reprocess old experiences in such a way that faulty efficacy and outcome percepts may be counteracted (Lent & Brown, 2006).

The SCCT advocates that career choices are often influenced by the beliefs that individuals develop and refine through four major sources, namely, personal performance accomplishments, vicarious learning, social persuasion, and physiological states and reactions (Smith, 1997). These factors influence the kinds of competencies that individuals acquire. It should be noted that personal accomplishments exert the most influence on self-efficacy. However, Lent and Brown (2006) observed that the effects that the above mentioned factors have on self-efficacy depend on how they are patterned within a particular learning context and how they are processed on a cognitive level.

Ali and Saunders (2006) appraise SCCT's ability to explain career developmental processes of minority and underserved groups where cultural characteristics of specific environments are captured. A limitation of the SCCT is that although it adequately addresses the issue of contextual barriers in career development, it however fails to address the potential influence of contextual supports (affordances) which facilitate individual's career choice and development adequately (Gushue & Whitson, 2006).

Therefore, the SCCT has its focus on self-efficacy, outcome expectations, and goals and how these factors interact with other factors, for example, social demographical factors in aiding decision making in individuals.

#### **2.4.4 Donald Super's theory**

As indicated above, one of the theories that have dominated South African vocational research is that of Donald Super. Super's (1957) theory looks at career decision making from a developmental perspective. He views vocational development as a process of development and implementation of a self-concept; where people choose careers that allow them to express their conceptions of who they are and to demonstrate their levels of career maturity (Benshoff, Kroeger & Scalia, 1990). However, critics often suggest that since the developmental theory was developed on white middle class adolescent males who experienced a continuous vocational development, theoretical views might not necessarily be applicable to groups that do not have a



continuous vocational development or those with delayed development (Rojewski, 1994). Reid-Van Niekerk and van Niekerk (1990) have shown that career maturity of youths who come from disadvantaged background differ from individuals who come from non-disadvantaged backgrounds when analysis is undertaken from a developmental perspective. This is an important aspect to consider particularly in the South African context where certain groups have historically had unequal access to resources that are critical in career development. Despite this limitation, advances have been made to tailor-make developmental theories and make them more sensitive to contextual variations and applicable across contexts. It is for this reason that questionnaires that have been developed and/or adapted for the South African context are utilised in this research project.

For Super, occupations require different characteristics of abilities and personal traits and vocational competencies and preferences change with time, experience (Savickas, Briddick, & Watkins, 2002). This process of change may be summarised in a series of life stages characterised by growth, exploration, establishment, maintenance and disengagement. The nature of career patterns is determined by the individual's parental socioeconomic level, mental ability, education, skills, personality characteristics, career maturity and opportunities to which they are exposed (Momborg, 2004). Super's (1957) developmental theory proposes that people essentially differ in their abilities, interests and personalities. As a result, people are qualified by virtue of each of these characteristics for a number of occupations. This implies that each occupation requires a characteristic of patterns of abilities, interests, and personality traits which can allow for a variety of occupations for each individual and a variety of individuals in each occupation. Occupational preferences, competencies, individual work and life contexts, and self concepts change with time and experience making choice and adjustment a continuous process. This processes contain a series of life stages characterized by growth, exploration, establishment, maintenance and decline and these stages are further divided into fantasy, tentative, realistic phases of exploration and secondly, into trial and stable phases of the establishment phase. Development through the life stages can be guided by facilitating the process of maturation of abilities, and interests as well as aiding in reality testing and development of the self concept. The process of vocational development thus is essentially that of developing and implementing a self concept. The process of compromise between individual and social factors, between self

concept and reality is one of role playing. Finally, work satisfaction and life satisfaction mostly depend upon the extent to which the individual finds adequate use of their abilities interests, personality traits, and values (Momberg, 2004).

According to Momberg (2004) Super's theory aims for a process of synthesis and compromise between individual's social factors, self concept and reality, and involves role playing and learning from feedback. Work and life satisfaction depend on the extent to which an individual finds adequate outlets for abilities, needs, values, interests, personality traits and self concept (Perrone, Egisdóttir, Webb & Blalock, 2006). Thus the degree of people's satisfaction is propositional to the degree to which they have been able to implement their self concept. Work and occupation provide a focus for personality organisation for most people although this focus is peripheral, incidental or non-existent.

The following discussion will be focused on Super's developmental stages and tasks that individuals go through in career development.

According to Super, Crites, Hummel, Moser, Overstreet and Warnath (1957), there are five stages that individuals go through in career development. These stages include the growth, exploration, establishment, maintenance and decline stages (Smart & Peterson, 1997). Apart from the stages, Super et al. (1957) conceptualises five developmental tasks (crystallization specification, implementation, stabilization, and consolidation) that an individual has to achieve in the career development process (Savickas, 2001).

The first stage is the *growth* stage which carries on from birth till 15 years and is characterized by development of attitudes, interests, and behaviours that relate to ones self-concept with regard to career development. The vocational self concept and other related vocational processes and behaviours are learnt in many ways including observing parents and significant others (Ferreira, Santos, Fonseca & Haase, 2006). The individual gains sufficient knowledge and skills that are needed in career development if the stage is successfully mastered. The second is the *exploratory* stage (15-24) which is characterized by a phase in which choices are narrowed but not finalized. According to the demographics of this study, most of the individuals fall within this stage. The

*establishment* stage (25-44) is characterized by trial and stabilization through work experiences. The *maintenance stage* (45-64) is characterized by a continual adjustment process to improve working position and situation. Finally, the *decline* (65+) is characterized by pre-retirement considerations, work output, and eventual retirement (Career Services, 2007).

**Table 2.1 Super’s five Career Development Stages**

Stage	Age	Characteristics
Growth	Birth – 14/ 15	Development of self-concept, capacity, attitudes, interests, needs, general understanding of the world of work
Exploratory	15-24	"Trying out" through classes, work experience, hobbies. Tentative choice and related skill development
Establishment	25-44	Entry-level skill building and stabilization through work experience
Maintenance	45-64	Continual adjustment process to improve position
Decline	65+	Reduced output, prepare for retirement

Super’s developmental tasks consists of the *crystallization* period (15-18) which is characterized by a period of *cognitive-processes* which formulates a general vocational goal through awareness of resources, contingencies, interests, values, and planning for the preferred occupation (Career Services, 2007). According to Witko, Bernes, Magnusson and Bardick (2005) individuals seek career information and become aware of their vocational interests. At this stage of crystallization, it is critical that individuals are exposed to career information and resources so that they are equipped to make rational and informed career choices in the next development stage. The period of *specification* (18-21) is characterized by a period of moving from tentative vocational preferences toward a specific vocational preference. The *implementation* period (ages 22-24) is characterised by completing training of vocational preference and entering employment (Career Services, 2007). The *stabilization* (24-35) sub-stage is characterized by confirming a preferred career by actual work experience and use of talents to demonstrate career choice as an appropriate one (Career Services, 2007).The *consolidation* (35+) period is characterized by the establishment of a career by advancement, status, and seniority.

**Table 2.2 Super’s Vocational Developmental Tasks**

Vocational	Ages	General Characteristics/Developmental Tasks
Crystallization	14-18	Developing and planning a tentative vocational goal
Specification	18-21	Firming the vocational goal
Implementation	21-24	Training for and obtaining employment
Stabilization	24-35	Working and confirming career choice
Consolidation	35+	Advancement in career

Super (as cited in Career Services, 2006) believed that in order for people to have a successful career development and career maturity, they have to go through each of the developmental stages successfully and that failure to do so would create difficulties in developmental tasks. According to Super it's an individual's knowledge of careers that are important and ultimately determines successful career decisions (Career Services, 2007). It is as a result of Super's emphasis on self, career knowledge as well as career maturity that the current study uses this theory for the purpose of this study.

Super's developmental perspective has been criticised for being too prescriptive and that it is affected by individual circumstances which are used in systematic career assessment or guidance (Davis, 1997). Super's developmental theory, though, has contributed a lot to career development and the life career development stages and roles that individuals assume in the various stages still ring true and finds relevance for today's career development. This theory cannot however be generalised as is but must be adapted to the local contexts in which it is to be used. When using this theory, it is also important to consider the different factors that affect individual career development. Finally, it should be noted that career maturity is a developmental construct which evolves over time and is in no way uniform. In addition, care should be taken to consider that individuals do not always attain the same level of career development to enable good career decisions.

It is evident from the above theories that the concept of career maturity is central in decision making. Individuals are also required to have adequate career knowledge which is done through career exploration as well as having enough self knowledge in order to make well informed career decisions. These aspects influence how one's career will proceed and the success thereof.

Psychology as a profession has its own unique selection processes and various psychology-related career paths require that students have adequate career maturity, career knowledge as well as self knowledge to have a successful career. It is for this reason that career maturity, self-knowledge and career knowledge are regarded as important constructs to investigate in order to determine how psychology honours students make career decisions. Super's theory has the potential to provide analytical power to the investigation as it puts emphasis on the centrality of career maturity in career decision making.

The following discussion explores the variables that are investigated in the current study. These include career maturity, career knowledge and self knowledge within the framework of career decision-making.

## **2.5 CAREER MATURITY**

### **2.5.1. Description of concept.**

Career maturity is a concept that evolves through developmental stages. It should be noted that this project focuses specifically on the concept of career maturity rather than maturity in general. Career maturity is an important concept in career development and has in the last few years received a lot of attention. Career maturity has its origins in Super's developmental theory of career behaviour (Dhillon & Kaur, 2005). According to Creed, Patton and Prideaux (2006) career maturity is central in understanding career behaviour. Therefore, it is important to consider in career development and the role it plays in influencing career decision-making. Career maturity emphasises the importance of both affective and cognitive skills as enabling factors that assist individuals to make realistic decisions (Rojewski, 1994). As stated by Busacca and Taber (2002) career maturity is a prerequisite for making wise and realistic occupational choices therefore, the more mature an individual is the more they would choose an occupation that is realistic and incorporates his or her self-concept.

Career maturity can be defined as "the individual's readiness to cope with the developmental tasks with which he or she is confronted with because of his or her biological and social developments, as well as society's expectations of people who have reached that stage of development" (Pickworth, 1997, p. 17). Leong and Barak (2001) define career maturity as "a

readiness to deal with the vocational development tasks appropriate to an individual's life stage" (p. 297). This implies that the person must have the appropriate cognitive abilities to deal with various career challenges that may come along their way in the course of their life time. In the current study, challenges may relate to the selection processes that characterise the psychology profession as well as the limitations in selection categories. Furthermore, challenges might also relate to the employment opportunities available for those who for some reason are not selected for the Masters Programme enabling them to become psychologists. Therefore, the profession requires mature individuals who can take all the above mentioned factors in order to succeed in their careers. Mkhize and Frizelle (2000) point out that career maturity differs across cultures and that some psychological tests might not measure or tap what is psychologically relevant by certain cultural groups. In summary career maturity was designed with the purpose of testing attitudes with regard to decisiveness, involvement, independence, orientation and compromise as well as assessing knowledge in terms of self appraisal, occupational information, goal selection, planning and problem solving (Prideaux & Creed, 2001).

Within the domain of career maturity, two components have been widely examined. Attitude and behavioural dimensions of career development refer to the beliefs and behaviours that are associated with career decision making (Creed et al., 2006)). For instance, career-related orientation, involvement, planning and exploration have been operationalized as depicting career attitudes and/or behaviours (Schmitt-Rodermund & Silbereisen, 1998). The other dimension includes knowledge which refers to the information and skills required to make career decisions such as occupational information, self-appraisal and planning (Creed & Patton, 2003). Therefore, it is important that individuals have adequate measures of both the attitude and behavioural dimensions in order to make good and effective career decisions. Literature on career development theories has identified a number of correlates of career maturity. Internal determinants like age, gender, school grade, mental intelligence, language, personal maturity and self concept and locus of control have been identified by Miller (2006) as correlates of career maturity. In addition, Miller (2006) postulate parents and family interactions, social-economic level, geographical area of residence, school and guidance Programmes, and community involvement and culture as external determinants of career maturity.

Career maturity is made up of the following five dimensions

- Obtaining information by the person on himself and converting this information to self-knowledge
- Acquiring decision-making skills and applying them in effective decision making
- Gathering career information and converting it into knowledge of the occupational world.
- Integration of self-knowledge and knowledge of the occupational world
- Implementation of the obtained knowledge in career planning (Coertse & Schepers, 2004; Langley, Du Toit & Herbst, 1996, p3).

The above mentioned dimensions form the activities that Super et al. (1957) named as career developmental tasks. Therefore, these tasks provided individuals with a vehicle to progress through Super's five stages of career development (Coertse & Schepers, 2004). Below is a brief representation of Super's model of career maturity.

**Table 2.3 Super's Model of Career Maturity (González, 2008)**

<b>Career playfulness:</b>	<b>Career exploration:</b>	<b>Information:</b>	<b>Decision-making:</b>	<b>Reality orientation:</b>
Distant future	Consultation	Education and instruction	Principles	Self knowledge
Intermediate	Recourses	Income and requirements	Practice	Realism
Future	Participation	Duties		Consistency
Present		Supply and demand		Crystallisation
		Conditions		Work experience
		Education and instruction		
		Career advancement		

Super's et al. (1957) model of career maturity indicates the importance of various aspects of career maturity in making career choices. As can be observed from the above model, it is critical that individuals engage in the exploration of possible career options and the acquisition of information is of the utmost importance. Individuals should also acquire decision making skills and have a realistic orientation to decision making. One central theme in Super's developmental theory is that of the self concept. Super et al. (1957) believed that the self-concept was a result of physical and mental development. The idea of the self concept emanates from observations of work and how growth develops in working adults, general environment, and general experiences. Super's theory consists of 14 propositions which suggest that people differ in terms of abilities and personalities, needs, values, interests, traits and self concepts. As a result of this people are qualified by virtue of these characteristics for a number of occupations.

Essentially, research on career maturity shows that career maturity usually increases with age, usually increases with an increase in education (Hasan, 2006); is positively linked with cultural group and socio-economic status and that career maturity is also positively linked with intellectual level (Naidoo, Bowman, & Gerstein, 1998). There have been findings suggesting that black learners score lower than their white counterparts on measures of maturity however, this can be accounted for as a result of blacks having inadequate access to career information (Mkhize & Frizelle, 2000). It is therefore important to consider such findings when interpreting research results. Such factors might confound research results thus sensitivity to such issues should be addressed.

### **2.5.2 Career knowledge**

Zhou and Santos (2007) stipulate that one of the major factors that affect career decision-making is lack of information. This factor includes a lack of information about steps involved in the career decision-making process, lack of information about the self and various occupations and lack of information about ways of obtaining additional information. According to Arnold (as cited in Zhou & Santos, 2007), there is a need to have congruent information about the two kinds of knowledge to ensure progress in the career decision-making process. One of the most important tasks that one undertakes as part of the career decision process is to gather information about the possible career options that one is interested in (Barker & Kellen, 1998). Bimrose and



Barnes (2007) go on to say that career development in people can be identified through their increased greater awareness of opportunities and options in their way.

Access to and the use of career information is an important and often integral part of the decision-making process (Stead & Watson, 2006). However, there is evidence indicating that there is lack of career knowledge as well as career misconceptions amongst learners, parents and teachers alike (Mbetse, 2002). Research has shown that most students do not always seek information about job and career choices and options before they make their decisions. For example, research conducted by Pang (as cited in Webber & Zhu, 2007) on young Chinese people found that lack of information about career and employment opportunities was a key factor in the narrow range of occupational aspirations. Therefore, students should be encouraged from an early age to engage in career information searching activities to ensure that they make informed career decisions. For instance, psychology requires one to have a long term view at the profession because of its unique career path. As mentioned in the previous chapter, one needs to have a Master's degree in order to qualify as a psychologists and that takes a minimum of 6 years. It is also important that individuals have alternative career plans if they are not selected for the honours or Masters Programme.

Stead and Watson (2006) state that research in South Africa indicates that school leavers often have limited career knowledge and that this problem impacts on effective career decision making. As stated by Mkhabela (as cited in Watson et al., 1995) black adolescents had inadequate career knowledge because most of their information was mostly derived from hearsay. This can be attributed to the lack of vocational guidance that is available in formal educational systems (Stead & Watson, 1998). Research conducted in South Africa shows that the youth are expressing a greater need of more and better information to assist them in decision making on education and employment issues (Stead & Watson, 2006). Therefore, there is an urgent need for more and comprehensive career guidance in schools.

According to Mbetse (2002), career misconception and lack of career knowledge are fuelled by the media industry such as television and film which further support and strengthen the misconceptions that are held mostly by youth. According to Crosby (2005) individuals tend to

make assumptions about an occupation's working conditions, job duties, educational requirements, and employment prospects. Some common myths held by individuals include the fact that people think that there is only one career choice for them and that until they find it they won't be satisfied or successful; another myth pertains to the fact that individuals think that they must be experts in their field in order to succeed (Stead & Watson, 1993). Therefore, there is need for interventions aimed at correcting the misconceptions that young people have for instance through the use of career counselling programmes which should be aimed at institutional levels as well as communal levels (Mbetse, 2002). Stead and Watson (2006) state that career information services play a vital role in an individual's career development during various stages of career decision making. This will be discussed further later in the chapter.

Sources of career knowledge range from parents and other family members, friends and peers to career teachers and career advisers. Hargrove, Inman and Crane (2005) advocate that the ability for young people to explore and consider career options and thus make appropriate career decisions was directly influenced by the quality of family interactions, boundaries, and emotional interdependence. Barker and Kellen (1998) advocate that "as a general rule, the most successful people in life are those who have the best information" (p.1). Therefore, career exploration should be encouraged early in schools.

### **2.5.3 Self knowledge**

Self knowledge refers "to the insight into one's personality which enables him to know what he is capable of" (Mbetse, 2002, p. 83). One of the most well known theories that posit the importance of self knowledge in career decision-making processes is that of Super, who states that most career choices attempt to actualize the skills, talents and interests of one's self concept (Gianakos, 1999). According to Barker and Kellen (1998) self knowledge has to do with a person knowing their talents, skills, interests, values and other personal attributes that might be of value in the working environment. This knowledge aids one in making decisions that promote good and informed career decisions. Anakwe, Hall and Schor (1999) advocate that self knowledge encompasses information about the individual and includes skills that focuses on individual development. Acquisition of these skills contribute to learning about oneself and thus

to realistic goal setting in managing careers. Thus effective career decision-making happens when individuals acquire an in-depth self knowledge.

According to Pickworth (1997) three factors are involved in the process of choosing a career. These are self analysis, occupational analysis, and the integration of self information and occupational information. Therefore, self knowledge plays a crucial role in career decision making and to a large extent may determine the success of one's career development. As stated by Mbetse (2002), self knowledge is an essential attribute if young people are to make realistic career choices. It is therefore imperative that individuals have good self knowledge to ensure that they make effective and adequate career decisions for successful future career and employment opportunities. According to research conducted by Anderson and DaGiau (as cited in Lankard, 1996), understanding one's self concept as well as its effect on different roles and relationships has major influence on career maturity. Therefore, self knowledge is not only essential but necessary in the career decision process but also in life in general.

Lankard (1996) proposes ways for acquiring self knowledge which include the use of problem-based learning. This is an instructional model based on constructivism, the concept that learners construct their own understanding by relating concrete experience to existing knowledge; processes of collaboration and reflection are involved. In this model learners are presented with an ill-structured problem-one that has no obvious solution and for which problem-solvers cannot be certain they have the right answer. The problem must be content relevant and represent a real situation faced by an individual, group, company, or community. According to Savoie and Hughes (as cited in Lankard, 1996, pp. 2-3), solving the problem takes students through the following processes of engagement, inquiry, solution building, debriefing and reflection and presentation of findings. Engagement in problem-based learning requires students to self-direct their search for a solution by often assuming the role of a key actor in the problem situation for example, lawyer, an environmentalist, a statistician and so forth. The process of inquiry requires students to brainstorm with others and gather information from multiple sources. In order to start building a solution, students work in teams discussing alternatives and examining possible solutions. Once alternatives and possible solutions have been explored debriefing and reflection requires students to share information, opinions and ideas with others regarding what they have

learned through the experience. Thereafter, students write plans, reports and other forms of work documentation to include in their portfolios of accomplishments and achievements. A problem-based approach can enhance knowledge of self and knowledge of potential careers and how to access them.

## **2.6. CONCLUSION**

The world of work is constantly changing and this requires individuals to change in accordance with what is required in the current work environment. If people are to have successful careers they will have to adapt their career decisions. However, career decision-making is not an easy task and requires certain competencies for it to lead to successful careers. Many career decision theories advocate for different competencies but in the end the best theory is one that ensures successful careers for individuals. Career theories seem to emphasise the importance of knowledge of the self (personality, interest, competencies) and knowledge of the world or work (career information, vocational interests) and the integration of the two. Achievement of these aspects contributes towards making optimal career decision and choosing careers successfully.

This chapter provided background to career development, career decision making, career maturity, self knowledge, career self knowledge and various career development theories. The following chapter discussed the research method.

## CHAPTER 3

### RESEARCH METHOD

This chapter discusses the research method used in the present study. The research design and approach employed in the study are described first, taking into consideration how they relate to the aims and objectives. This is followed by a discussion of the target group and population; measuring instrument; data gathering techniques; ethical considerations; and finally the statistical analysis that will be used to make sense of the data. The overarching goal is to provide an explication of the convergence model and how it was maximized to enrich the collection of both quantitative and qualitative data. The chapter concludes with a discussion of ethical considerations.

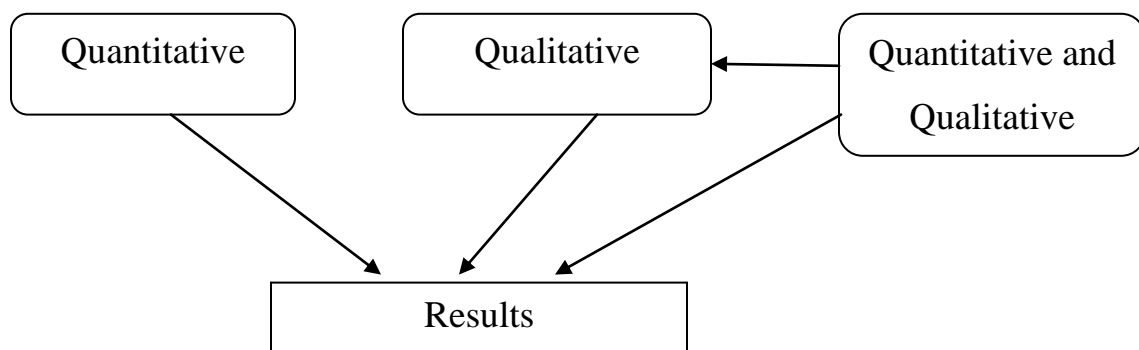
#### 3.1 RESEARCH DESIGN

The current study is exploratory and descriptive in nature. A mixed method design is employed as it allows the collection of both qualitative and quantitative data. Johnson and Onwuegbuzie (2004) define mixed methods as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study” (p.17). Hanson, Creswell, Clark, Petska, Creswell (2005) however, provide a more detailed and comprehensive definition of mixed methods as “the collection or analysis of both quantitative and qualitative data in a single study in which data is collected concurrently or sequentially, is given a priority, and involve the integration of the data at one or more stages in the process of research” (p. 224).

Mixed method designs have been described as effective in bridging the gap between quantitative and qualitative research approaches. This relates to the designs’ use of methods and philosophies that attempt to fit together insights provided by the two methods in a workable solution (Johnson & Onwuegbuzie, 2004). Some of the advantages that have been associated with the use of mixed method design pertain to the fact that this method may allow researchers to generalise their findings from a sample to a population. In this way, researchers are able to gain a deeper understanding of the phenomenon being studied (Creswell, 1999). Dunning, Williams, Abonyi,

& Crooks (2008), advocate that mixed methods may at times be used to confirm a study's results, discover new perspectives and gain a deeper comprehension of the results as well as develop new measurement tools. Therefore, according to Dunning et al. (2008) the two main goals of mixed methods are (1) confirmation of results and (2) comprehension of results.

Confirmation of results relates to the convergence of findings from two different data sets where comprehension of results relates to the process of bringing together both quantitative and qualitative approaches to provide a more comprehensive and detailed understanding of the phenomenon under study (Dunning et al., 2008). Furthermore, Creswell (1999) provides three reasons for conducting a mixed method study. First, researchers gain more or better information by converging results from both qualitative and quantitative methods rather than from one method only. Second; it allows for results from one method to be extended by using another method and finally; quantitative measures and instruments that are grounded in views of participants in the study can be developed. Johnson, Onwuegbuzie and Turner (2007) also offer three reasons for combining quantitative and qualitative methods to enhance research. Some of the reasons they suggest include confirmation purposes and allowing for the development of analysis to provide richer data and initiating new modes of thinking by attending to paradoxes that emerge from the two data sets. Therefore, as can be observed from above, the mixed method approach is seen as a method that is enhanced by the value that two independent methods add to the overall value of research. In the convergence model, data analysis is independent and integration of findings takes place at the interpretation phase of the study. The following diagram illustrates the convergence model:



**Figure 3.1 Convergence Model**

A mixed method approach is adopted in this study because of its ability to allow for a fuller comprehension of the phenomenon being investigated. Quantitative data provide descriptive statistics that will be used to explore career decision-making by exploring the relationship between career maturity, career knowledge and self knowledge in participants' responses. The intention with qualitative data collection is to explore future career plans that honours students make. The goal with asking students about future career plans is explore the kinds of occupations that students consider at an honours level and whether they also consider alternative career and/or occupational options. In summary, mixed method is used in a complimentary manner to first, elicit possible elaborations, enhancements, and clarification through qualitative data from quantitative data results; and second, to explore whether there is any convergence or relation between the two data sets.

### **3.2 TARGET GROUP AND POPULATION**

The study used purposive sampling technique in which the researcher identified participants who would be suitable for the purposes of the study. Babbie and Mouton (as cited in McDonald & LiebenBerg, 2006) state that purposive sampling is an appropriate method to use when the researcher's knowledge of the population enables him/her to ensure that the sample is most representative of the population being studied. Whitley (2000) and De Vos (2002, p. 207) further argues that purposive sampling enables a sample that contains "the most characteristic, representative or typical attributes of the population". The sample of this study consisted of 62 Psychology Honours students from the University of Pretoria. However, only 51 respondents answered the qualitative aspects of this study. Purposive sampling technique has its power and logic in the selection of information rich cases for in-depth study and also illuminates questions under study (Patton, 1990).

### **3.3 MEASURING INSTRUMENTS**

#### **3.3.1. Psychological Assessment in South Africa**

Psychological assessment has in the recent years been faced with a major challenge: the need to embrace the cultural pluralism that is characteristic of the global context of the 21<sup>st</sup> century (Blustein & Ellis, 2000). There has been a greater call for the affirmation and acceptance of different cultural voices in the area of assessment. Career assessment has not escaped this call. In

recent years there has been great emphasis to accommodate cultural relativism in the field of career assessment.

Challenges of cross-cultural career assessment does not only relate to the West (as the originator and creator of theory) but also to the South Africa context. Psychological assessment faces many challenges in South Africa and this is mostly due to the fact that practitioners do not have access to quality tests that would ensure reliable and valid results (Foxcroft, Paterson, le Roux & Herbst, 2004). In addition there has not been much development on test development and thus there is limited research available on assessment instruments. The limited research conducted in career development has shown that although the Western tests are of high and adequate quality, certain issues such as culture have been ignored (Mathabe & Temane, 1993). More needs to be done in understanding the importance of culture and context in career assessments.

Watson, Duarte and Garvin (2005) stress that the use of international instruments must be done with caution and that care should be taken in exploring the theories on which instruments are based, the constructs they measure and if such instruments can be generalized to different cultures. Foxcroft (1997) states that psychological measures tend to reflect the nature of society in which it is used. For example, Langley et al. (1996) found that there were differences in career decision-making between white and black students in South Africa; therefore assessment measures should be sensitive to such findings. In the South African context these differences can also be linked to the fact that during the Apartheid era, the provision of education was segregated along racial lines and therefore, psychological testing at times was also developed along these cultural lines (Foxcroft, 1997).

Although South Africa has made huge strides in the development of adequate and relevant psychological assessment, there is still more to be done. As observed from above one important aspect that must be kept in mind in the development of psychological measures is the issue of culture and how the political climate has affected certain segments of society. Consideration of culture is imperative if psychological assessment is to make a difference in the lives of South Africans.



### 3.3.2 Career Development Questionnaire (CDQ)

Two Career Decision Making data tools were used to collect data. The first instrument is the CDQ which was developed by Langley, du Toit, and Herbst (1992) and is based on the Career Maturity Models of Super (1983) and Westbrook (1983) (De Bruin and Benard-Phera, 2002). This instrument was developed to assess maturity levels of students. The CDQ was standardized on the South African population using white and Black high school and university students with English, Afrikaans or an African language as first language (De Bruin, & Benard-Phera, 2002). The questionnaire was development from the participation of 7696 students in 1985, 1988 and 1989 respectively (Langley, du Toit & Herbst, 1996).

The questionnaire consists of five scales namely, Self knowledge, which measures the testee's knowledge of the importance of life roles, work values and occupational interests; Decision making which measures the ability to make effective decisions; Career information measures knowledge of the world of work; Integration of Self knowledge and Career information measures the ability to integrate relevant information on the self and the world of work and finally, Career planning measures ability to make a career decision and implement a career plan (Langley, du Toit & Herbst, 1996). A description of CDQ scales is provided in Table 3.1. This table was adapted from Langley et al. (1996, p. 7).

**Table 3.1 Scales of the CDQ**

<b>Self-information (SI) items 1-20</b>
The scale Self-information concern the testee's knowledge of, for example the importance of life roles, work values and occupational interests
<b>Decision-Making (D) items 21-40</b>
This scale concerns the testee's ability to make effective decisions
<b>Career information (CI) item 41-60</b>
The scale career information evaluates the testee;'s knowledge of the world of work
<b>Integration of Self-information and Career information (I) item 61-80</b>
This scale concerns the testee's ability to integrate relevant information on himself with information about the world of work.
<b>Career Planning (CP) items 81-100</b>
The scale Career Planning evaluates the testee's ability to make a career decision and to implement a career plan.

The following guidelines for interpreting CDQ scores are based on the statistics obtained from Langley et al. (1996) original standardized sample:

**Table 3.2 Interpretation Guidelines for the CDQ**

<b>Self-information (SI)</b>	
15-20	The testee had adequate self-knowledge
11-14	The testee's self-knowledge can be improved
7-10	The testee's self-knowledge is inadequate
0-6	The testee has little self-knowledge
<b>Decision-Making (DM)</b>	
15-20	The testee has the ability to make decisions
11-14	The testee's ability to make decisions can be improved
7-10	The testee's decision-making skills are inadequate
0-6	The testee has little knowledge of decision making
<b>Career Information (CI)</b>	
12-20	The testee has adequate career knowledge
8-11	The testee's knowledge of careers can be improved
4-7	The testee's career information is inadequate
0-3	The testee has little knowledge of careers
<b>Integration of Self Information and Career Information</b>	
15-20	The testee adequately integrated self-information and career information
11-14	The testee integration of self-information and career information can be improved
7-10	The testee's integration of self-information and career information is inadequate
0-6	The testee's self knowledge and career information have not been integrated
<b>Career Planning (CP)</b>	
13-20	The testee has enough knowledge to carry on with career planning
9-12	The testee's ability to plan a career can be improved
5-8	The testee's ability to plan a career is inadequate
0-4	The testee does not have the ability to plan a career

\*the maximum score for each scale is 20; this score is an indication of career maturity

The internal consistency reliabilities of the CDQ for the 5-20 item scale range from .66 and .83 which are regarded as satisfactory for research purposes. The intercorrelations on the 5 sub-

scales are moderately high. There has been little research done on the validity of the instrument, however; research conducted by De Bruin and Bernard-Phera (2002) on the construct validity of the instrument indicates satisfactory validity. In studies conducted on grade 12 learners, De Bruin and Bernard-Phera (2002) indicate that the construct validity ranged from Self Knowledge (.50), Decision-making (.65), Career Information (.75), integration of Self Knowledge and Career Information (.62) and Career Planning (.83). Furthermore, the study advocates that the CDQ can make useful contributions to career counselling as it is an affective indicator of individuals readiness to make career decisions. The following discussion pertains to the reliability coefficients obtained in the current study on the CDQ.

Table 3.3 indicates the reliability score of the CDQ in the current study. Results indicate reliability scores of .93. Numbly (as cited in Delafrooz, Paim & Khatibi, 2009) recommends that for purposes of social science research, reliability levels of above .70 must be met. According to the interpretation guidelines of the CDQ the 5-20 item scales should have reliability score of between .66 and .83 to be satisfactory for research purposes. Therefore, according to these guidelines, the reliability scores of this study are very high.

**Table 3.3 Reliability Statistics for CDQ**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.927	.925	99

### 3.3.3 Career Decision Making Difficulties Questionnaire (CDDQ)

The CDDQ developed by Gati, Krausz and Osipow (1996) was designed to assess the sources of indecision as well as the difficulties associated with career decision making (Creed & Yin, 2006). According to Gati, Osipow, Krausz, and Saka (2000) the CDDQ was developed to test the theoretical taxonomy based on the Decision Making Theory which plays an important role in understanding the processes involved in career decision making. This instrument also has a potential to serve as a diagnostic instrument individual career counselling, for example, it can be

used as part of initial screening to help guide counselling process (Gati et al., 2002). The difficulties measured by the CDDQ have been identified as matching the difficulties reported by clients' career counselors (Amir, Gati, Kleiman, 2008).

The following assumptions based on Gati et al. (1996) have identified as underlying the CDDQ

- An ideal career decision maker is a person who is aware of the need to make a career decision and willing to reach such a decision; capable of making the decision using a systematic process.
- Any deviation from the ideal career decision maker entails difficulties that may impair or impede the career decision-making process.
- Career decision-making difficulties can be classified into distinct categories, according to; the time at which they arise (before or during career decision-making); the source of difficulty (cognitive or affective); the impact the difficulty on the decision and the type of intervention required to overcome the difficulty.
- indecision may result from a single difficulty or a combination of difficulties and
- Each individual's difficulties may belong to one category or a number of categories.

According to Gati et al. (as cited in Lancaster, Ruldolph, Perkins & Patten, 1999) the "assumption is that career indecision is not a single type of problem with different symptoms but rather a group of problems that typically lead to the same final outcome" (p. 395). Therefore, the CDDQ states that the indecisive individual may have problems in many areas of the decision-making process such as vague goals, unclear alternatives, and the inability to formulate clear ideas (Lancaster et al., 1999).

The CDDQ questionnaire includes 3 major categories of difficulties which are further divided into 10 specific categories of difficulties and finally 44 specific difficulties. The first major difficulty category is lack of readiness which has three sub-scales namely: lack of motivation to engage in career decision making process; general indecisiveness concerning all types of decision making; dysfunctional beliefs (irrational expectations about career decision making). The other 2 difficulty categories are lack of information and inconsistent (Lancaster et al., 1999).

Lack of information includes 4 difficulty categories: lack of knowledge about steps involved in career decision making; lack of information about self; lack of information about the various occupations and lack of information about ways of obtaining additional information. The major category of inconsistent information includes 3 difficulty categories: unreliable information difficulties related to contradictory information; internal conflicts within individual (such as contradictory preferences within the individual) and external conflicts which refer to conflicts including influence of significant others.

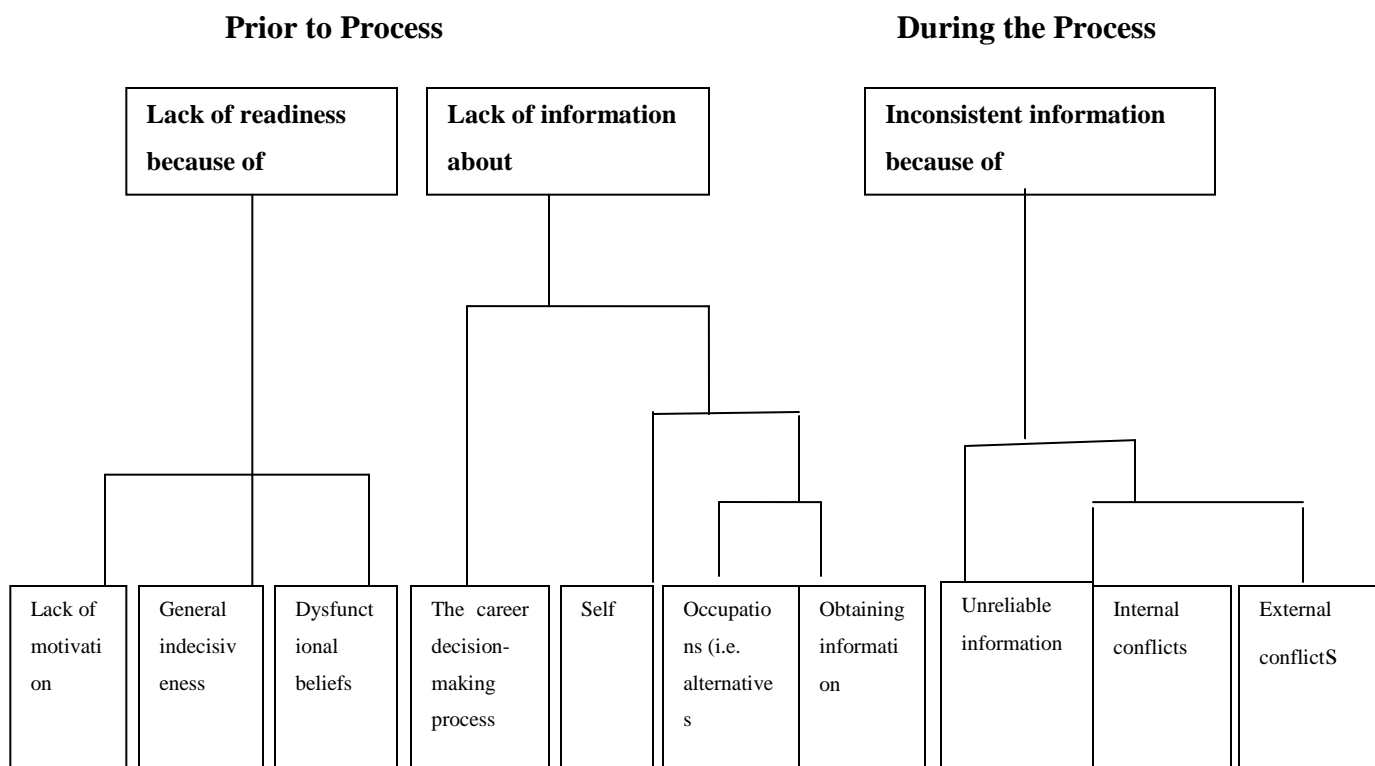
The following table indicates the types of difficulties and what each significant difficulty entails. The difficulties often guide the career counsellor in determining the kind and level of intervention required by individuals or groups of individuals.

**Table 3.4** Types and Meaning of Difficulty ([www.cddq.org](http://www.cddq.org), 2008) (CDDQ)

Type of difficulty	Score 1-9
<p><b>Lack of Motivation</b> - A high score in this area reflects a lack of willingness to make a decision at this point in time. This may indicate that you don't feel like making the decision now, or it may stem from a belief that there is no need to invest time and effort trying to make a career choice, since time will lead you to the right decision.</p>	
<p><b>General Indecisiveness</b> - A high score in this area reflects a state of general difficulty in making decisions. Many people tend to be indecisive in various areas of their lives. Decisions are often accompanied by hesitation and fear of failure or commitment. People who are generally indecisive may therefore procrastinate or repeatedly change their mind once they have reached a decision. Sometimes they may feel they need others to affirm their decision in order to feel that they have made the right choice.</p>	
<p><b>Dysfunctional Beliefs</b> - refers to irrational beliefs and expectations about career decisions. A high score in this area reflects a distorted perception of the career decision-making process. Irrational beliefs and expectations about career decisions, such as the belief that one only chooses a career once and that that choice is necessarily a life-long commitment, or that one occupation can fulfill all of a person's aspirations, may impede the career decision-making process.</p>	

<p><b>Lack of Information about the Decision Making Process</b> – A high score in this area reflects a lack of knowledge about how to reach a decision wisely, and specifically about the steps involved in the career decision-making process. For instance, you may not know what factors to take into account, or may encounter difficulties in combining the knowledge you have about yourself (for example, your strengths and weaknesses) with information on the various career options (for example, what abilities are required for a specific occupation).</p>	
<p><b>Lack of Information about the Self</b> - A high score in this area reflects a situation where you feel that you do not have enough information about yourself. You may not know what you want - for example, what work conditions you prefer or whether you are talented enough in a certain field, or whether you possess certain personality traits that are critical for a specific occupation.</p>	
<p><b>Lack of Information about Occupations</b> - A high score in this area reflects a lack of information about existing career options: what alternatives exist and / or what each alternative is like.</p>	
<p><b>Lack of Information about Additional Sources of Information</b> – A high score in this area reflects a lack of information about ways of obtaining additional information or help that may facilitate decision making. For example, you may not know where to search for information about occupations, or where to find personal career counselling.</p>	
<p><b>Unreliable Information</b> - A high score in this area indicates that you feel that the information you have about yourself or about the considered occupations contains contradictions. For example, there may be contradictions between the way you view yourself and the way others view you, or between subjective and objective information about yourself (for instance, if you are told by your art teacher that your paintings are outstanding, but you regard your paintings as mediocre).</p>	
<p><b>Internal Conflicts</b> - A high score in this area reflects a state of internal confusion. Such conflict may stem from difficulties in compromising between the many factors you view as important, (for example, you have been accepted at a particular college, but your partner lives in a different city). Internal conflicts may also arise when an attractive occupation involves a certain unattractive element (such as the long training needed to become a physician), or when several occupations seem equally attractive.</p>	

**External Conflicts** -- A high score in this area may indicate a gap between your preferences and the preferences voiced by significant others, or between the opinions of two significant others. External conflicts arise when you decide to take a certain factor into account or choose a certain occupation, while significant other(s) have other preferences. For example, you might prefer an occupation that requires a short training programme, while your parents prefer that you choose an academic career.



**Figure 3.2: Taxonomy of the CDDQ** (Gati, Krausz and Osipow, 2008, pp 284)

The first page of the CDDQ questionnaire contains biographical information such as age gender, and educational level. In the following pages, the participant is asked to rate (on a 9-point scale) the degree to which the difficulties represented by each item describes them (from 1 = does not describe me to 9 = describes me well). The final question on the questionnaire asks the participant to rate the overall severity of their difficulties in making a career decision (from 1 = not severe at all to 9 = very severe) and to list further difficulties preventing them from making a

career decision. The questionnaire is scored by determining how many points the individual receives on a particular scale, with the higher score representing higher levels of difficulty (Lancaster et al., 1999). According to the interpretation guidelines of the CDDQ a given difficulty is considered salient if it has a mean scale of 6.67, moderate if it is between 6.66 and 3.34 and negligible if it is below 3.33 (Gati et al., 1996).

### 3.3.3.1 Internal consistency, reliability and validity of the CDDQ

As stated by Amir, Gati, and Kleiman (2008) the internal consistency and the test-retest reliability, construct, concurrent, and predictive validity of the CDDQ has been tested and supported in numerous studies ( e.g, Albion & Fogarty, 2002; Amir & Gati, 2006; Gati & Saka, 2001a, 2001b; Kleiman, Gati, Peterson, Sampson, Reardon, & Lenz, 2004; Lancaster, et al., 1999; Mau, 2001; Morgan & Ness, 2003; Osipow & Gati, 1998; Tien, 2005). A coefficient alpha was obtained in the original data of the CDDQ to determine the internal consistency of the measure. This included the 3 major categories, 10 scales and the overall total of the CDDQ. A hierarchical cluster analysis was computed on the 10 CDDQ scales using Wards (1963) minimal variance method which is considered as one of the best clustering algorithms for recovering underlying structures. The internal consistency of the scales varied widely, with Dysfunctional Myths being the lowest at .34 and Lack of Information about Self (.93) being the highest. The Lack of Readiness category indicated the lowest overall reliability (.66), which can mainly be attributed to the unreliability of the Dysfunctional Myths scale. The other two categories, Lack of Information (.96) and Inconsistent Information (.92), showed high internal consistency. Aiken (as cited in Lancaster et al., 1999) recommends that tests measuring general personality variables must have alpha coefficients above .80. The CDDQ indicated high reliability (.96) levels. Table 3.5 presents the reliability scores for the CDDQ as conducted by various studies.

**TABLE 3.5: Reliability scores of previous studies on the CDDQ**

Study	Sample	Age	N	Cronbach	Alpha	Reliabilities	Total Questionnaires
	Group			Lack of Readiness	Lack of Information	Inconsistent Information	
Gati,	Israeli	19-	259	.70	.93	.91	.95



Krausz & Osipow (1996)	Young Adults	23					
Gati, Krausz & Osipow (1996)	American Students	17-23	304	.63	.95	.89	.95
Osipow & Gati (1998)	American Students	16-33	403	.62	.94	.86	.94
Gati, Krausz Osipow & Saka (1996)	Israeli Career Counselees	18-42	95	.68	.86	.85	.90
Gati & Saka (2001a)	Israeli High-School Students	14-17	1772	.58	.88	.87	.91
Gati & Saka (2001b)	Israeli Young Adults	19-23	417	.61	.87	.77	.88
Mau (2001)	American Students	18-23	514	.66	.96	.92	.96
	Taiwanese Students	18-21	947	.55	.93	.82	.92

Therefore, the results of the studies provide support for the reliability and validity of the CDDQ. Therefore, CDDQ may be a useful instrument in career decision-making assessment as a result of its sound theoretical framework (Lancaster et al., 1999). This instrument can provide significant information about decision-making difficulties that students may face and thus can direct the career counselor's attention to particular problem areas. The strong theoretical grounding and potentially promising psychometric properties of the CDDQ describe a measure that may be resourceful in better understanding the multidimensionality of career indecisiveness and assist in the development of a more comprehensive and accurate theoretical perspective of the construct.

The following discussion pertains to the validity and reliability of the CDDQ as obtained in the current study.

Table 3.6 presents the validity scores for the CDDQ on the sample. There are two validity items on the CDDQ: item 7 and item 12 on the questionnaire. According to the interpretation guidelines of the CDDQ scores of 5 and above in validity item 7 indicates credible responses whereas as scores below 2 indicate non credible responses. Scores of 5 and below in validity item 12 indicates credible responses whereas as scores above 8 indicate non credible responses. According to the scores in table 3.6, validity item 7 indicates credible responses (6.89) from the sample. Scores in validity item 12 also indicates credible responses from the sample with validity scores of 2.50.

**Table 3.6 Validity items for the CDDQ**

	N	Minimum	Maximum	Mean	Std. Deviation
Q7	62	2.00	9.00	<b>6.8871</b>	1.61047
Q12	62	1.00	7.00	<b>2.5000</b>	1.65708
Valid N (listwise)	62				

**Table 3.7 Reliability scores for the CDDQ**

Cronbach's Alpha	N of Items
.914	34

Table 3.7 indicates the reliability levels of the CDDQ as obtained in the current study. Results indicate a reliability level of (.914) which can be considered high. The recommended reliability according to guidelines in the social sciences is .81. Most scales indicated alpha levels consistent with or slightly above that of both the American and Israel studies conducted by Gati et al.

(1996). These reliability scores are also consistent with scores obtained in other studies (Gati, Krausz & Osipow, 1996, .95; Mau, 2001, .92; Gati & Saka, 2001a, .91).

### **3.4 DATA GATHERING**

As discussed earlier, an exploratory and descriptive design was used in this study and the sample was drawn from the Psychology Honours class at the University of Pretoria. The procedure included getting permission to recruit students from the course co-ordinator and permission from the Ethics and Quality Control Committee of the Faculty of Humanities. The researcher then briefed the students about the research and subsequently requested participation. Before the students filled in the questionnaires, they were asked to answer three questions on a piece of paper provided. The researcher thought that it was important to ask these questions because the participants were at a stage where they had to make important career choices. This is because this is the selection year into the Master's Programme and only a limited number of individuals are selected for the Programme. Therefore, this requires individuals to make alternative career plans. The questions asked were as follows.

- What are your future career plans?
- What is your Plan A?
- What is your Plan B?

The first question relates to individuals overall career plans. The second question relates to individuals first choice of study field for the Master's Programme. The final question relates to the alternative options or plan B in cases where individuals are not selected for the Master's Programme.

Respondents were then requested to complete the two questionnaires during a research methodology lecture with the help and permission of the relevant lecturer. With the permission and help of the lecturer, respondents were asked to answer the three qualitative questions on a piece of paper before they filled in the two questionnaires at the beginning of the lecture. Data collection took place in the research methodology class because it is one of the few classes which all students are required to attend. Therefore, in order to get a majority of the students to

participate it seemed appropriate to have the data collection in this period. The administration of the two questionnaires took approximately 35 minutes with the CDQ taking approximately 9 minutes and the CDDQ 25 minutes to complete.

### **3.5 ETHICAL CONSIDERATIONS**

Before the commencement of the study, permission was requested from the relevant institutions which in this case would be the Department of Psychology. Participation in this study was voluntary and informed consent was obtained from all the participants. There was no foreseeable negative consequence of the study to the participants; however, participants were free to withdraw from participation at any stage without any negative consequences. All respondents were assured of confidentiality and anonymity. Participants were not required to write their names on either of the questionnaires, the dignity and worth of all the respondents was guaranteed.

### **3.6 STATISTICAL ANALYSIS**

The mixed method approach was used in the study. This involved both the use of the qualitative and quantitative data analysis. Data analysis has been described as a process that involves repetitive reading through one's data, including breaking the data down and building it up again in new way (elaborating and interpreting) (Terre Blanche & Kelly, 2002). On the quantitative data, SPSS a social science computer analysis package was used to analyze the data. Summary statistics were used to describe the sample. Biographical data was presented in the form of a summary table. This gives the reader a quantitative description of the sample and its characteristics on sex, age and language (See Table 4.1, 4.2 and 4.3 respectively). Descriptive statistics such as frequencies were used to describe the career maturity levels of students. Responses on the CDDQ helped in the identification of student's level of agreement on a 9 point scale with high scores indicating more career decision making difficulties.

In this research we did not see it necessary to perform a confirmatory factor analysis to validate the 34 difficulties in the CDDQ as to whether they could be indeed grouped into the 10 subcategories and further into 3 major categories. This is because there is substantial evidence from previous studies (Amir & Gati, 2006; Amir. Gati & Kleiman, 2007; Gaffner & Hazler,

2002; Gati et al., 2000; Gati et al., 1996; Gati & Saka, 2001). On the CDDQ a given difficulty is considered salient if it has a mean scale of 6.67, moderate if it is between 6.66 and 3.34 and negligible if it is below 3.33 (see Appendix A for the scoring of the CDDQ). Item statistics were performed for the sub-categories of the CDDQ.

Items comprising each of the five scales for the CDQ were written to reflect a specific underlying measure for career maturity dimensions. According to Langley et al. (1996) items comprising each scale should correlate moderate to high amongst each other. High internal consistency as described earlier was obtained on each scale indicating that the CDQ is a valid measure for career maturity. As a result some items have been combined under a given scale to reflect a certain dimension.

In this research career maturity profile was subsequently obtained for the total sample by describing the distribution of the scores on the CDQ. On the CDDQ, career knowledge and self knowledge scores were interpreted according to the guidelines as stipulated by Langley et al. (1996) and Gati et al. (1996) respectively.

Content analysis was used on the qualitative data. Content analysis can be defined as research method for the subjective interpretation of the content of text data through the systematic classification of coding and identifying themes or patterns (Hsieh & Shannon, 2005, p. 1278). In this study, the answers gained from qualitative questions relating to the future career plans of the respondents was systematically analysed by identifying the patterns of responses and interpreting the information gathered together with the results obtained on the questionnaires. This is where the convergence model plays a crucial role. The identified themes or patterns in the content analysis were together with the results on the quantitative data used to get a deeper understanding of the phenomenon being explored in this study.

The data collected on the content analysis was firstly analysed by identifying the common themes, in this case career options (for example, clinical psychology, research psychology and so on). Thereafter, frequency counts were determined to establish which career options appear in the data. Frequencies were represented in a grid that provides an analysis based on the three

questions. Analysis was conducted on each of the three questions to determine firstly, the common themes then the frequency for that specific item. The main aim of the content analysis was to establish the most popular career option based on participants' responses on all three questions.

### **3.7 CONCLUSION**

The aim of this chapter was to provide a detailed description of the technical aspects involved in conducting this study. A mixed method design was used as the research methodology. Data gathering procedures included the use of purposive sampling method. The sample consisted of 62 psychology honours students from the University of Pretoria. The CDQ and the CDDQ were used as data assessment instruments.

## CHAPTER 4

### RESEARCH RESULTS

#### 4.1 INTRODUCTION

This chapter presents the results of the data gathered from the questionnaires and qualitative questions with the view of indicating the relationships between career maturity, career knowledge and knowledge and how they explain career decision-making among honours students at a South African University. Descriptive statistics of the sample data is presented first and then the discussion follows with a presentation of qualitative results.

#### 4.2 DESCRIPTIVE STATISTICS OF THE SAMPLE

The sample consisted of 62 honours students who were enrolled for the Honours degree Programme at the University of Pretoria in 2009. The biographical composition of the sample is described below.

##### 4.2.1 Sex

Figure 4.1 reflects the sex composition of the sample.

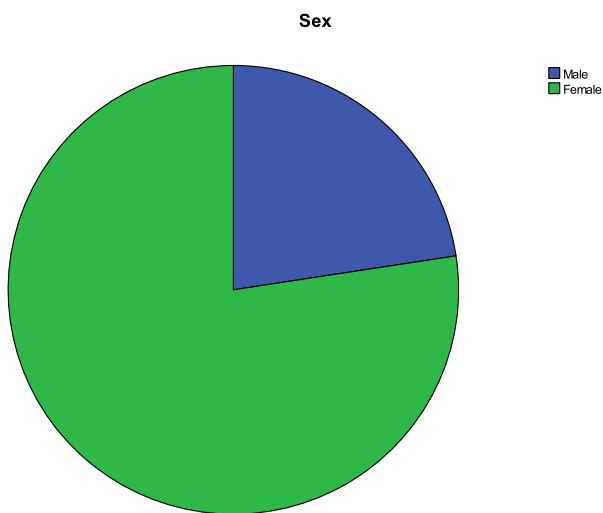


Figure 4.1 Sex composition of the sample.

The majority of the sample, that is 77.4% were female (n=48) with a smaller proportion of male respondents (n=14) representing 22.6%. The ratios and the sample size warrant a cautious read of the results as they cannot be generalised to the entire population. The ratio between the two genders, however will not affect the results as gender is not a variable under exploration in this study.

#### 4.2.2 Age

Table 4.1 represents the age distribution of the sample. The majority of respondents were 21 years of age. The maximum age of the respondents was 38 years.

**Table 4.1: Age distribution**

	N	Minimum	Maximum	Mean	Std. Deviation
Age	62	21	38	22.79	2.637
Valid N (listwise)	62				

#### 4.2.3 Home language

Table 4.2 indicates the composition of the sample according to home language. Results indicate that 44.1% of respondents, which constituted the largest group, were English and Afrikaans speaking with (n=26) each. This group is followed by Other at 4.8% (n=3) and isiZulu (3.2%; n= 2). Three people did not respond to this item, therefore the results are based on the responses of 59 participants.



**Table 4.2 Home Language**

	Frequency	Valid Percent
Valid Afrikaans	26	44.1
English	26	44.1
S.Sotho	1	1.7
isiXhosa	1	1.7
isiZulu	2	3.4
Other	3	5.1
Total	59	100.0
Missing System	3	
Total	62	

### 4.3 DESCRIPTIVE STATISTICS OF THE MAIN VARIABLES

#### 4.3.1 Results of the CDQ

Table 4.3 provides career maturity scores on the CDQ. Results on the CDQ indicate that overall, the respondents had adequate maturity levels. Scores on the *self information* scale indicate above average scores (16.68). The *decision-making* scale also indicated above average scores (17.42). *Career information* (16.58), *integration of self information and career information* (17.74), and *career planning* (17.45) scales revealed above average maturity levels.

**Table 4.3: Profile for CDQ**

CDQ Scale	Scale Score
Self-information (SI)	<b>16.68</b>
Decision-making (DM)	<b>17.42</b>
Career information (CI)	<b>16.58</b>
Integration of self-information and Career information	<b>17.74</b>
Career Planning (CP)	<b>17.45</b>

## 4.3.2 Results of the CDDQ

### 4.3.2.1 Choice of Occupation

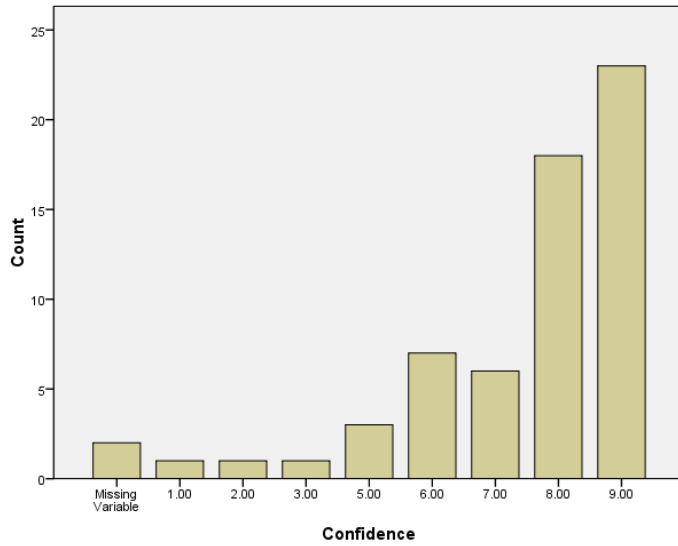
Before respondents filled in the CDDQ they were asked to answer two questions pertaining to whether they had considered a field of study and how confident they were the choice they have made. The following statistics represents the number of respondents who had considered a field of study (or occupation) to demonstrate some kind of career planning. Results indicated that a majority of students (93.5%) had considered a field of study and/or occupation and only 6.5% had not. As indicated by studies conducted by Mau (2004) containing a large proportion of post graduate students, research shows that degree level is positively associated with career maturity and thus it is not surprising that more than 90% of the respondents had decided on their future careers.

**Table 4.4: Choice of occupation**

	Frequency	Valid Percent
Valid Yes	58	93.5
No	4	6.5
Total	62	100.0

### 4.3.2.2 Level of confidence of occupational choice

Respondents were asked about the degree to which they were confident of their chosen field of study on a scale of 1 to 9, with 1 indicating low confidence levels and 9 very high. The results obtained indicate that a majority 37.1% (n= 23) of the respondents scored 9 indicating very high confidence levels, followed by 29.0% (n= 18) who scored 8. Therefore, most respondents indicated high confidence levels in their chosen study field.



**Figure 4.2: Level of confidence Level of occupational choice**

### 4.3.3 Results of the main scale profile for the CDDQ

Table 4.5 represents the descriptive statistics for the three main scales on the CDDQ.

**Table 4.5 Main scale profile for the CDDQ**

		Statistic	Std. Error
Readiness	Mean	<b>4.1848</b>	.11830
	95% Confidence Interval for Mean Lower Bound	3.9482	
	Upper Bound	4.4213	
	Std. Deviation	.93146	
Information	Mean	<b>3.0149</b>	.19654
	95% Confidence Interval for Mean Lower Bound	2.6219	
	Upper Bound	3.4079	
	Std. Deviation	1.54757	
Inconsistent information	Mean	<b>2.8435</b>	.18195
	95% Confidence Interval for Mean Lower Bound	2.4797	
	Upper Bound	3.2074	
	Std. Deviation	1.43271	

Results of the three main scales of the CDDQ indicate that respondents had difficulties on the scale *readiness* with scores of 4.18. According to the interpretation guidelines, this indicates that there are moderate problems in this area. This may suggest that some respondents may not adequately be prepared and ready to make optimal career decisions. The *lack of information* scale showed no difficulties in this area. Finally, the scale *inconsistent information* also showed scores of 2.84 indicating that respondents did not experience difficulties in that particular area.

#### 4.3.3.1 Lack of readiness sub-scale scores

**Table 4.6 Lack of readiness sub-scale scores**

		Statistic	Std. Error
Lack of motivation	Mean	<b>2.3441</b>	.17911
	95% Confidence Interval for Mean Lower Bound	1.9859	
	Upper Bound	2.7022	
	Std. Deviation	1.41030	
Indecisiveness	Mean	<b>4.9409</b>	.22603
	95% Confidence Interval for Mean Lower Bound	4.4889	
	Upper Bound	5.3928	
	Std. Deviation	1.77979	
Dysfunctional beliefs	Mean	<b>4.3226</b>	.19088
	95% Confidence Interval for Mean Lower Bound	3.9409	
	Upper Bound	4.7043	
	Std. Deviation	1.50299	

Respondents did not show any difficulties in relation to making career decisions as reflected on the ‘lack of motivation’ sub-scale (2.34). However, on the *Indecisiveness* sub-scale, respondents indicate moderate difficulties (4.9). The sub-scale *Dysfunctional beliefs* also showed moderate difficulties (4.3). These results indicate that some respondents may experience problems regarding indecision (making specific career choices) as well as some problems with dysfunctional beliefs (having irrational beliefs and expectations about career decisions). For example, many students may aspire to become clinical psychologists, however, because of the

selection processes, not everyone is selected for profession. Therefore, irrational expectations among respondents may play a role in the obtained results.

#### 4.3.3.2 Lack of information sub-scale scores

**Table 4.7 Lack of information sub-scale scores**

		Statistic	Std. Error
Career Decision Making Process	Mean	3.0054	.23458
	95% Confidence Interval for Lower Bound	2.5363	
	Upper Bound	3.4744	
	Std. Deviation	1.84706	
Self Information	Mean	2.7137	.21936
	95% Confidence Interval for Lower Bound	2.2751	
	Upper Bound	3.1523	
	Std. Deviation	1.72722	
Occupational Information	Mean	3.5914	.26514
	95% Confidence Interval for Lower Bound	3.0612	
	Upper Bound	4.1216	
	Std. Deviation	2.08771	
Ways of obtaining information	Mean	3.0242	.24457
	95% Confidence Interval for Lower Bound	2.5352	
	Upper Bound	3.5132	

Std. Deviation	1.92573
----------------	---------

The *Career decision making process* sub-scale did not show any difficulties (3.00). Respondents also showed no difficulties on the *Self information* sub-scale (2.71). However, on the *Occupational information* sub-scale respondent's revealed moderate difficulties (3.59). Finally, the *Ways of obtaining information* sub-scale did not indicate any difficulties.

#### 4.3.3.3 Inconsistent Information sub-scale scores

**Table 4.8. Lack of inconsistent information sub-scale scores**

		Statistic	Std. Error
Unreliable information Mean		<b>3.0968</b>	.24653
95% Confidence Interval for Mean Lower Bound		2.6038	
Upper Bound		3.5897	
Std. Deviation		1.94120	
Internal conflicts	Mean	<b>3.0968</b>	.20051
95% Confidence Interval for Mean Lower Bound		2.6958	
Upper Bound		3.4977	
Std. Deviation		1.57885	
External conflicts	Mean	<b>1.8306</b>	.16541
95% Confidence Interval for Mean Lower Bound		1.4999	
Upper Bound		2.1614	
Std. Deviation		1.30240	

All the sub-scales on the Inconsistent information scale did not show any difficulties with *unreliable information* (3.096), *internal conflicts* (3.096) and *external conflicts* (1.83).

#### 4.4 CONTENT ANALYSIS OF QUALITATIVE DATA

The following discussion is based on the qualitative data that was gathered by asking respondents three questions pertaining to their future career plans. Below are the results obtained from the data using content analysis.

As stated in the previous chapter, before the students began filling in the two questionnaires, they were asked to answer three questions,

1. What are your future career plans?
2. What is your plan A?
3. What is your plan B?

Respondents were asked to answer these questions on a piece of paper. Content analysis was used to analyse the data gathered from the responses to the questions. Content analysis is a method for the systematic, objective quantitative and reliable study of a phenomenon that can be used to determine key ideas, themes and measuring comparative positions and trends (Spens & Kovács, 2005). The table below indicates the results obtained from the content analysis. It should be noted that the content analysis was based on the results of 51 respondents.

**Table 4.9: Content Analysis**

<b>Future Career Plans</b>	<b>Plan A</b>	<b>Plan B</b>
Clinical psychology x26	Clinical psychology x27	Psychometry x11
Research psychology x8	Research psychology x 8	Research psychology x3
Counseling psychology x3	Counseling psychology	Counseling psychology x4
Psychometry x3	Psychometry x3	No plan x6
Find job in psychology field x2	Find job in psychology, gain experience then apply for Masters x4	Find job in psychology, gain experience then re-apply x11
Sports psychology x2	Sports psychology x2	Teach x3
Industrial psychology x2	Industrial psychology x2	Do criminology honours x2
No concrete plans x2	Don't have plan x2	Become a Writer

		Apply at other universities
		Industrial psychology
		Do medicine or neuropsychology

The above results represent the responses obtained from the content analysis conducted on the three questions asked as part of the qualitative aspect of this study. As can be observed from the above table, Clinical Psychology, Psychometry, Research Psychology, and Counselling Psychology were some of the most popular future career options/choices. There were some students who indicated that they would go and find work in the related field in order to gain work experience before they applied for the Masters Programme. Another group of respondents indicated that if they were not selected for the Masters Programme the first time round, they would go find relevant work to gain exposure and experience before re-applying for the Masters Programme at a later stage. Table 4.10 indicates the four most popular future career options on each of the three questions as indicated by the respondents.

**Table 4.10 Popular future career options**

<b>FUTURE CAREER PLANS</b>		<b>PLAN A</b>		<b>PLAN B</b>	
Clinical Psychology x26	<b>51%</b>	Clinical Psychology x27	<b>53%</b>	Work and gain experience in chosen field and then re-apply x11	<b>22%</b>
Research Psychology x8	<b>16%</b>	Research Psychology x8	<b>16%</b>	Psychometry x10	<b>20%</b>
Psychometry x3	<b>6%</b>	Work and gain experience in chosen field before applying	<b>8%</b>	Don't have plan B x7	<b>14%</b>



		for Masters Programme x4			
Counselling Psychology x3	<b>6%</b>	Psychometry x3	<b>6%</b>	Find a job in the psychology field x5	<b>10%</b>

As can be observed from the above table, responses to the question ‘*What are your future careers plans*’ indicated that respondents preferred Clinical Psychology (51%) as their future career option/choice. Research Psychology came in second as the most popular future career field with 16% followed by Psychometry and Counselling Psychology with 6% each. On the question ‘*What is your plan A*’ respondents again indicated Clinical Psychology (53%) as their first career option/choice. This was followed by Research Psychology (16%), work and gain experience in chosen field before applying (8%) and finally Psychometry (6%).

Responses on the third question ‘*What is your plan B?*’ indicated very interesting results. On this question most respondents preferred going to find work and gaining experience in their chosen and/or relevant field and then later re-applying for the Masters Programme (22%) if they are not chosen the first time around. This was followed by respondents who preferred to study Psychometry (20%) at Unisa if they were not selected for the Programme. It was also interesting to note that a number of respondents did not have a plan B (14.6%) and indicated that plan B was not an option. A considerable number of students also indicated that they would go and find work in the psychology field if they were not selected for the Masters Programme . However, respondents did not indicate what kinds of jobs/work or in what sectors of psychology they would explore possible job opportunities.

On average, the most popular career option across the three questions was Clinical Psychology. This was followed by Psychometry, Counselling Psychology and Research Psychology.

#### 4.6 CONCLUSION

The statistical and qualitative analyses of the data were reported in this chapter. The chapter started with the presentation of the descriptive statistics for the sample. With regards to the main questions of the study, results indicated that overall, respondents did not reveal inadequacies with career maturity and self knowledge. However, there were some moderate difficulties in career decision-making mainly; indecision, dysfunctional beliefs as well as inadequate career information. Finally, analysis on the qualitative data was presented. The results of this analysis indicate that a majority of the respondents preferred Clinical Psychology as a future career plan and were willing to later re-apply for the programme if not selected the first time round. Related to this aspect is the fact that a considerable number of students did not have a plan B and that it was not an option to them. The following chapter discusses the results in light of the literature review.

## CHAPTER 5

### DISCUSSION OF FINDINGS

#### 5.1 OVERVIEW

This chapter discusses the results presented in the previous chapter. This chapter provides a critical evaluation of the research findings and contextualises the results within current literature in the area of career development. The chapter concludes by providing a summary of the research limitations, future recommendations and a final conclusion. This study aims to explore career maturity, career knowledge, and self information among psychology honours students. The CDQ was used to assess career maturity whereas the CDDQ was used assess difficulties regarding career information and self information. The preceding chapter demonstrated that there were adequate career maturity levels among respondents on the CDQ. Results also indicated no difficulties on the scale self information on both questionnaires however, there were moderate difficulties on career information on the CDDQ.

#### 5.2 CAREER MATURITY

There comes a point in individuals' lives that they have to make career decisions. This moment requires the presence of certain elements that will aid in making good and effective career decisions. During this period career maturity and the readiness to make career decisions are essential elements that can guide individuals to successfully make career decisions that are optimal. According to Busacca and Taber (2002) career maturity is central and critical to the career decision process. Therefore, the absence of career maturity may lead to poor decisions that would eventually end in unsuccessful and/or unsatisfactory careers. Ultimately, not only is career maturity essential but also necessary in the making of successful careers.

As indicated in the preceding chapter, respondents in this study indicated high maturity levels. Scores on all the constructs of the CDQ indicated above average scores: self information SI (16.68); decision making process DM (17.42); career information CI (16.58); integration of self-information and career information (17.74); and career planning CP (17.45). The results obtained on the career maturity scale could be explained by looking at certain characteristics of the

sample. For instance, central in the concept of career maturity is the effect of age and educational level on individuals' career maturity. According to established literature on career maturity, age and educational level highly correlate with career maturity. According to Super (as cited in Patton & Lokan, 2001) among others it is through increase age and level of education that the individual develops career maturation. Studies have shown that older students score highly on career maturity measures than younger students (Creed & Patton, 2003). The sample in this study consisted of respondents with ages ranging from 21 to 38. The age range of this sample could therefore contribute to the high maturity levels of respondents. Thus the findings of the current study are consistent with available literature.

As stated above, an important factor closely related to age that plays a crucial role in maturity levels is educational level. According to González (2008), educational level has an impact on career maturity levels and this has been demonstrated in numerous studies. For example, Patton and Creed (2001) found that students in higher grades have higher maturity levels than those in lower grades. More recent findings also suggest that educational level might be a better predictor of maturity levels than age as a result of its influential role in the maturation process. This is because students are required by the educational system to make grade-related career decisions rather than age-related (Naidoo et al., 1998). The current study targeted individuals on honours level. These respondents have had four years of post graduate education and according to literature are required to have gained a considerable level of maturity. As a result, the findings obtained in this study can further be strengthened by this evidence.

Career planning and decision-making are integral components of career maturity and play important roles in career decision making. According to Savickas, Briddick and Watkins (2002) mature individuals are inclined to look ahead, taking a planful approach and therefore actively involve themselves in career planning activities. According to Witko et al. (2005) during career planning individuals' engage in tasks related to obtaining career information and becoming aware of their vocational interests. The findings in this study suggest that respondents have undertaken to engage in career planning. This is demonstrated by the results obtained on the question related to whether respondents have considered a field of study. A majority (93.5%) of the respondents indicated that they had indeed considered a field of study compared to the 6.5%

who had not. This is indicative of the fact that respondents had engaged in career planning at some stage of their lives. Considering the career path of the profession of psychology, it is important that individuals engage in early career planning so as to ensure better career outcomes, for example, consideration of alternative career options and study areas. It is also imperative for the respondents to engage in career planning especially at this stage in their career lives because it is at honours level that students are selected for the Masters' Programme. The selection processes eventually determine who will become psychologists and who will not. Therefore, there is considerable pressure in making good and effective career decisions at this stage. Thus career maturity is not only necessary but crucial.

Results from the qualitative data also indicate some kind of career planning and career exploration. Of the 51 respondents who had answered the 3 qualitative questions, a large number of the respondents indicated that they had thought of and decided on a future career or field of study. For example, 53% of the respondents had chosen clinical psychology as their first career choice compared to 16% who had chosen research psychology as a future field of study. Not only had respondents considered a future field of study or career, many had also considered plan B, that is if for any reason they are not able to pursue their first choice. This indicates that there was an awareness of considering alternative career options. However, a considerable number (22%) also indicated that they would go and find work in psychology related field so that they could gain experience to improve their chances of being selected for the Master's Programme the next time round. Considering the educational level and age of the respondents together with the maturity levels as obtained in this study, it is not surprising that respondents indicated to have engaged in some kind of career exploration. Super (1957) advocates that career exploration (which usually takes place between the ages of 15-24) is an important task to master in the career development process (Smart & Peterson, 1997). Only through the mastery of such tasks can individuals eventually acquire the career maturity needed to make successful and effective career decisions. Considering the age range of the respondents, Super's theory expects these individuals to have engaged in some kind of career exploration thus the results obtained are in line with this literature. Overall, the results obtained are in line with literature which advocates that a major component of career maturity includes individuals considering alternative of possible career options.

### 5.3 CAREER KNOWLEDGE

Career knowledge as described earlier can be described as knowledge about the various occupational options (Zhou & Santos, 2007). Although career knowledge is a critical component of career decision making literature shows that during career decision making individuals do not always have this information (Stead and Watson, 2006). This often limits good and effective career decision making.

As stated by Barker and Kellen (1998) one of the most important tasks that individuals need to undertake as part of the career decision making process is to gather as much information about the possible career options that one is interested in. The findings of the current study indicated that respondents experienced moderate difficulties (3.59) with career information on the CDDQ. These findings are in line with research which indicates that most students do not always look for information about jobs and career options (Barker & Kellen, 1998). Research conducted by Stead and Watson (2006) found that school leavers in the South African context often have limited career knowledge and this often poses as a challenge when making effective career decisions. However, it should be noted that results on the scale career information on the CDQ did not reveal any difficulties (16.58). The author cannot explain this disparity. A possible hypothesis that can be used to explain the disparity between results on the two questionnaires regarding the scale career information might relate to the design issues. For instance, on the CDQ individuals are required to indicate their choices with a 'true' or 'false' answer on statements such as "I am aware of alternative ways in which I can obtain training for a future occupation". However, on the CDDQ individuals are required to indicate where they lie on a scale of 1 to 9. Therefore, on the CDQ individuals are given limited space to indicate the extent of their knowledge base as a result of the 'true' and 'false' options. The CDDQ provides individuals with an opportunity to indicate the extent to which they are informed. One could argue that the CDQ assumes that individuals either have the knowledge or they do not. This weakens the responses of the respondents. There is a bigger possibility that individuals have some amount of information considering their age and educational level.

When asked if they had considered a study field or career field, majority (93.5%) of respondents on the CDDQ indicated that they had chosen a study field and indicated very confident levels in

this regard. This correlates with the results on the qualitative data which shows that out of the 62 respondents who had answered the three questions relating to future career plans 58 indicated to have considered a potential future field of study. However, if individuals had considered a field of study, how did they come to make career decisions considering that the scores on the scale ‘information about occupations’ show moderate difficulties. Respondents also indicate very high confidence levels. Therefore, if respondents did not have adequate information, what informed their decisions? This phenomenon is in line with literature which suggests that most students do not always have the adequate and necessary occupational information when they make their decisions (Stead & Watson, 2006). What is not clear in this study is whether students are unaware that they do not have adequate information. This could perhaps be pursued in further studies.

The disparity between the large number of students who have chosen future options and the difficulties experienced with career information might be explained by difficulties on the construct dysfunctional beliefs (distorted perceptions of career decision making process, irrational expectations and dysfunctional thoughts). Research results on the dysfunctional beliefs on the CDDQ indicate that a large number of students have moderate difficulties (4.32) with dysfunctional beliefs. Literature states that individuals may sometimes have irrational expectations about the career decision making process (Gati, Krausz, & Osipow, 1996). These irrational beliefs might impact the kind of decisions that individuals make in negative ways. As stated by Crosby (2005) individuals sometimes tend to make assumptions about an occupation’s educational requirements, and employment prospects therefore making decisions on inadequate and often misleading information.

Another explanation for the low scores on the *dysfunctional beliefs* sub-scale might be explained by what social psychologists term as optimistic bias. Optimistic bias can be defined as a predisposition to unrealistically expect things to turn out well (Baron, Byrne, & Branscombe, 2006). This basically means that individuals will go through the educational process with a strong sense and belief that they will achieve all their career plans and goals. Therefore, individuals might have irrational beliefs and/or expectations that they will definitely be accepted for the Master’s Programme despite their statistical chances. In relation to this study, individuals

might have unrealistic optimism towards being selected for the Master's Programme in their chosen field despite the many obstacles that they will have to overcome.

Dysfunctional beliefs could furthermore be explained by the fact that a majority (51%) of the respondents on the content analysis indicated Clinical psychology as their Plan A towards a future career and/or occupational field. The popularity of clinical psychology could be explained by many factors, for example, over confidence in being selected for the Master's Programme or that respondents are unaware of other options because clinical psychology is the most published and well marketed of all the psychology categories. It could also be that respondents did not take time to fully explore other options that are available to them. However, this may not necessarily be the case, thus further investigations on this aspect are warranted. Finding out the reasons behind respondents' choice could be undertaken as part of a further study.

The second most popular career plan was Research psychology (16%). When asked what their plan B was if they were not selected for the Masters Programme, most respondents indicated that they would find work in fields related to psychology so that they could gain experience and have a better chance of being selected for the Master's Programme when they re-apply. These results suggest that respondents might not have explored wider career options, for example, outside the field of psychology, as indicated by the lack of career information scores as well as the response on future career plans especially relating to their alternative plans. However, there might be other explanations to this phenomenon for instance that, respondents would really like to become psychologists and are willing to work, gain experience and re-apply. However, as stated above this can be explored further in other studies.

#### **5.4 SELF KNOWLEDGE**

Self knowledge is an important requirement in the process of career decision making. Good and effective career decision making is dependent on adequate self knowledge. According to Barker and Kellen (1998) self knowledge reflects an individual knowing their talents, skills, interests, values and other personal attributes that might be of value in the working environment. This in turn allows them to make realistic career decisions based on their information about the self.



The research findings on the CDDQ indicated that overall respondents had adequate self knowledge (2.71). Results on the scale self information on the CDQ also revealed high scores (16.68). These results are in line with research findings obtained in the South African context by Geldenhuys and de Lange (2007) whose participants showed remarkable self-knowledge relating to their career identities including independence, confidence and purposefulness. Research suggests that psychology students tend to have well established self knowledge because psychology students have greater knowledge about dimensions of personality than do students studying non-psychology disciplines (Baluch, Martin, Christian, & Corulla, 1996). This might help to explain students' high levels of self knowledge in this study.

## **5.5 LIMITATIONS**

The limitations of this study pertain to the fact that this study is based on 62 respondents therefore, the results obtained cannot be generalized. The fact that the sample was drawn from one class and one university may also pose as a potential limitation.

Another limitation to this study concerns the qualitative aspects. The study did not explore in detail the reasons why the respondents had chosen the particular future career plans that they had chosen. This could have provided more insight as to the reasons why respondents made the decisions that they made. This could have greatly enriched this study.

## **5.6 RECOMMENDATIONS**

This study can serve as a baseline study for further investigation. It is recommended that further studies be conducted to further explore the concepts of career maturity, career knowledge and self knowledge among psychology students by stratifying the sample much more and even conducting national studies. This is important if individuals are to make good and effective career decisions that will ensure success. Although there are career counselling programmes at most educational institutions, they do not seem to be effective in dealing with career decisions process of students. As indicated by Witko et al. (2005) sometimes students are not satisfied with the types of services they receive from school guidance counsellors and that there tends to be large discrepancies between the services students reported needing and the services they actually received. Therefore, there is a need to develop effective and comprehensive guidance and

counselling programmes. However, this needs to start with a comprehensive assessment of student needs. The results of this study could inform these programmes so that the problems being experienced could be addressed in an effective manner. More importantly there is a need for information about career preparation and opportunities available in specific field, general information about various careers (their programmes), and information regarding what grades or courses they need in order to achieve their career goals (Witko et al., 2005).

## **5.7 CONCLUSION**

This study was aimed at exploring career maturity, career knowledge and self knowledge among psychology students. According to the findings, respondents in this study showed adequate career maturity as well as self knowledge. However, regarding career knowledge, scores on the CDDQ revealed that there were moderate difficulties being experienced by respondents on this scale. Therefore, there is a need for promotion and provision of career information to students to enable them to make good and effective career decisions. The qualitative section revealed that respondents had considered future career plans which mostly included clinical psychology as a first choice followed by research psychology. As part of their plan B respondents indicate that if not selected for the Masters Programme the first time round, they would go and find work in the related field gaining experience and re-applying at a later stage to get a better chance of being selected. This indicates career planning on the part of students. Overall, the results of this research highlight the need for more comprehensive and effective career guidance programmes to encourage students in engaging in activities such as career exploration that will aid them in making good and effective career decisions. However, it should be kept in mind that the effectiveness of any programme will depend on the proper and accurate assessment of the needs of these students.

## REFERENCES

- Akhurst, J. (2009). Enhancing the employability of psychology graduates. Retrieved from [http://www.psychology.heacademy.ac.uk/docs/pdf/p20050412\\_EnhancingEmployability.pdf](http://www.psychology.heacademy.ac.uk/docs/pdf/p20050412_EnhancingEmployability.pdf)
- Albion, M. J., & Fogarty, G. J. (2002). Factors influencing career decision making in adolescents and adults. *Journal of Career Assessment, 10*, 91-126.
- Ali, S. R., & Saunders, J. (2006). College expectations of rural Appalachian youth: An exploration of social cognitive career theory factors. *Career Development Quarterly, 55*, 38-51.
- Alvi, S. A., Khan, S. B., & Kirkwood, K. J. (1990). A comparison of various indices of differentiation for Holland's model. *Journal of Vocational Behavior, 36*, 147-152.
- Amir, T., & Gati, I. (2006). Facets of career decision-making difficulties. *British Journal of Guidance and Counselling, 34*, 483-503.
- Amir, T., Gati, I., & Kleiman, T. (2007). Interpreting career decision-making difficulties. *Journal of Career Assessment* (in press).
- Amir, T., Gati, I., & Kleiman, T. (2008). Understanding and interpreting Career Decision-Making Difficulties. *Journal of Career Assessment, 16*(3), 281-309.
- Anakwe, U. P., Hall, J. C., & Schor, S. M. (2000). Knowledge-related skills and effective career management. *International Journal of Manpower, 21*(7), 566-579.
- APA referencing technique. Retrieved from [www.apa.org](http://www.apa.org)
- Armstrong, P. I., & Rounds, J. (2008). Linking leisure interests to the RIASEC world of work map. *Journal of Career Development, 35*(1), 5-22.

- Baard, F., & Schreiner, B. (1986). *My spirit is not banned*. Harare: Zimbabwe Publication House.
- Baartman, K. (1998). Employment opportunities for psychology graduates. *UNISA Psychologia*, 25 (1), 53-54.
- Baluch, B., Martin, G. N., Christian, I., & Corulla, W. J. (1996). Psychology and non-psychology students' estimation of their desirable and undesirable personality traits. *Personality and Individual Differences*, 21(4), 617-620.
- Barker, J., & Kellen, J. (1998). *Career planning: A developmental approach*, Prentice-Hall, Englewood Cliffs, NJ.
- Baron, R. A., Byrne, D., & Branscombe, N. R. (Eds.). (2006). *Social psychology*. (11<sup>th</sup> Ed). Boston, NY: Pearson Education, Inc.
- Bassili, J. N. (2008). Motivation and cognitive strategies in the choice to attend lectures or watch them online. *Journal of Long Distance Education*, 22(3), 129-148
- Baumgardner, S. R. (1982). Coping with disillusionment, abstract images, and uncertainty in career decision making. *Personnel and Guidance Journal*, 61 (4), 213-217.
- Benshoff, J. J., Kroeger, S. A., & Scalia, V. A. (1990). Career maturity and academic achievement in college students with disabilities. *Journal of Rehabilitation*, 56, 40-44.
- Bimrose, J., & Barnes, S. A. (2007). Styles of career decision making. *Australian Journal of Career Development*, 16(2), 20-28.
- Bloch, D. P. (1989). From career information to career knowledge: Self, search, and synthesis. *Journal of Career Development*, 16(2), 119-128.

- Blustein, D. L., & Ellis, M. E. (2000). The cultural context of career assessment. *Journal of Career Assessment*, 8, 379-390.
- Bonn, M., Janeke, C., & Kruger P. (2009). Honours psychology students' perceptions of job-related skills. *New Voices in Psychology*, 5(1), 49-62.
- Busacca, L. A., & Taber, B. J. (2002). The Career Maturity Inventory–Revised: A preliminary psychometric investigation. *Journal of Career Assessment*, 10(4), 441-455.
- Cassidy, S. (2008). Using counselling skills to enhance the confidence of mentors' decision making when assessing pre-registration nursing students on the borderline of achievement in clinical practice. *Nurse Education in Practice*, 9(5), 307-313.
- Career services. (2007). Retrieved from [www.careerservices.org](http://www.careerservices.org)
- Cervone, D., Shadel, W. G., & Jencius, S. (2001). Social-Cognitive Theory of personality assessment. *Personality and Social Psychology Review*, 5(1), 33–5.
- Chronister, K. M., & McWhirter, E. H. (2003). Applying social cognitive career theory to the empowerment of battered women. *Journal of Counseling and Development*, 81, 418-425.
- Coertse, S., & Schepers, J. M. (2004). Some personality and cognitive correlates of career maturity. *South African Journal of Industrial Psychology*, 2004, 30 (2), 56-73.
- Collin, A. (2006). Conceptualising the family-friendly career: The contribution of career theories and a systems approach. Symposium: critical perspectives on careers and family-friendly policies. *British Journal of Guidance and Counselling*, 34, 3, 295 – 307.
- Creed, P. A., & Patton, W. (2003). Predicting two components of career maturity in school based adolescents. *Journal of Career Development*, 29 (4), 277-290.

- Creed, P. A., Patton, W., & Bartrum, D. (2004). Internal and external barriers, cognitive style, and the career development variables of focus and indecision. *Journal of Career Development*, 30(4), 277-294.
- Creed, P., Patton, W., & Prideaux, L. (2006). Predicting change over time in career planning and career exploration for high school students. *Journal of Adolescence*, 30(3), 377-392.
- Creed, P. A., & Yin, W. O. (2006). Reliability and validity of a chinese version of the Career Decision-Making Difficulties Questionnaire. *International Journal for Educational and Vocational Guidance*, 6, 47-63.
- Creswell, J. W. (1999). Mixed method research: introduction and application. In T. Cijek (Ed.), *Handbook of educational policy*. San Deigo, CA: Academic Press.
- Crosby, O. (2005). Career myths and how to debunk them. *Occupational Outlook Quarterly*, 202, 691-5716. Retrieved from <http://www.bls.gov/opub/ooq/2005/fall/art0.pdf>
- Davis, C. (1997). Does Trait and Factor theory offer hopes of a neat match between jobs that are waiting to be filled and people who want jobs? *Vocational Choice and Development*. Retrieved from <http://www.careersteer.org/essays/vcd.html>
- De Bruin, G., P., & Bernard-Phera, M. J. (2002). Confirmatory factor analysis of the career development questionnaire and the career decision-making self-efficacy scale for South African high school students. *South African Journal of Industrial Psychology*, 28(2), 1-6.
- Delafrooz, N., Paim, L. J., & Kabiti, A. (2009). Developing an instrument for measurement of attitude toward online shopping. *European Journal of Social Sciences*, 7(3) 166-177.
- De la Rey, C. (1999). Narratives of women professors in South Africa. Unpublished doctoral thesis, University of Cape Town.

- De Vos, A., S. 2002. Scientific theory and professional research, in de Vos, A S, Strydom, H, Fouché, C S L & Delpont, C S L (eds) *Research at grass roots: For the social sciences and human service professions*. 2nd edition. Pretoria: Van Schaik.
- Dhillon, U., & Kaur, R. (2005). Career maturity of school children. *Journal of the Indian Academy of Applied Psychology*, 31(1-2), 71-76.
- Donahue, C. (2006). New career decision-making tool for high school students. *Techniques Online*, 16-19. Retrieved from [http://acteonline.org/members/techniques/2006-2007/upload/March06\\_Thm1.pdf](http://acteonline.org/members/techniques/2006-2007/upload/March06_Thm1.pdf)
- Dunning, H., Williams, A., Abonyi, S., & Crooks, V. A. (2008). A mixed method approach to quality of life research: a case study approach. *Social Indicators Research*, 85(1), 145-158.
- Du Toit, R. (2005). A review of labour markets in South Africa: career guidance and employment services. Retrieved from [http://www.hsrc.ac.za/Research\\_Publication-18970.phtml](http://www.hsrc.ac.za/Research_Publication-18970.phtml)
- Dziuban, C. D., Tango, R. A., & Hynes, M. (1994). An assessment of the effect of vocational exploration on career decision making. *Journal of Employment Counseling*, 31, 127–136.
- Feldman, K. A., Ethington, C. A., & Smart, J. C. (2004). What do college students have to lose? Exploring the outcomes of differences in person-environment fits. *Journal of Higher Education*, 75(5), 528-555.
- Ferreira, J. A., Santos, E. J. R., Fonseca, A. C., & Haasa, R. F. (2006). Early predictors of career development: A 10-year follow-up study. *Journal of Vocational Behaviour*, 70(1), 61-77.
- Foxcroft, C. D. (1997). Psychological testing in South Africa: perspectives regarding ethical and fair practices. *European Journal of Psychological Assessment*, 13, 229 -235.

- Foxcroft, C., Paterson, H., Le Roux, N. & Herbst, D. (2004). *Psychological assessment in South Africa: A needs analysis. The test usage patterns and needs of psychological assessment practitioners* (Final Report). Pretoria: Human Sciences Research Council.
- Gaffner, D. C., & Hazler, R. J. (2002). Factors related to indecisiveness and career indecision in undecided college students. *Journal of College Student Development*, 43, 317-26.
- Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision-making. *Journal of Counseling Psychology*, 43, 510-526.
- Gati, I., Osipow, S. H., Krausz, M., & Saka, N. (2000). Validity of the career decision-making difficulties questionnaire: counselees' versus career counselors' perceptions. *Journal of Vocational Behavior*, 56, 99-113.
- Gati, I., & Saka, N. (2001a). High school students' career related decision-making difficulties. *Journal of Counseling and Development*. 79, 331-340.
- Gati, I., & Saka, N. (2001b). Internet-based versus paper-and-pencil assessment: Measuring career decision-making difficulties. *Journal of Career Assessment*, 9, 397-416.
- Geldenhuys, J., & de Lange, N. (2007). Career identities of first-year female coloured students. *South African Journal of Education*, 27(1), 117–137.
- Gianakos, I. (1999). Patterns of career choice and career decision-making self-efficacy. *Journal of Vocational Behavior*, 54, 244-258.
- González, M. A. (2008). Career maturity: a priority for secondary education. *Journal of Research in Educational Psychology*, 6 (3), 749-772.



- Gottfredson, G. D., & Holland, J. L. (1990). A longitudinal test of the influence of congruency: Job satisfaction, competency utilization, and counterproductive behavior. *Journal of counselling psychology, 37*, 386-397.
- Guichard, J. (2003). Career counselling for human development: an international perspective. *Career Development Quarterly, 51*, 306 - 321.
- Guichard, J., & Lenz, J. (2005). Career theory from an international perspective. *The Career Development Quarterly, 54*, 17-28.
- Gushue, G. V., & Whitson, M. L. (2006). The relationship of ethnic identity and gender role attitudes to the development of career choice goals among Black and Latina girls, *Journal of Counseling Psychology, 53*, 379–385.
- Hanson, W., Creswell, J., Clark, V., Petska, K., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology, 52*, 224-235.
- Hargrove, B. K., Inman, A. G., & Crane, R. L. (2005). Family interaction patterns, career planning attitudes, and vocational identity of high school adolescents. *Journal of Career Development, 31*(4), 263-277.
- Hartung, P., & Blustein, D. (2002). Reason, intuition, and social justice: elaborating on Parsons' career decision-making model. *Journal of Counseling & Development, 80*, 41-47.
- Hasan, B. (2006). Career maturity of Indian adolescents as a function of self-concept, vocational aspiration and gender. *Journal of the Indian Academy of Applied Psychology, 32*(2), 127-134.
- Heussen, S. (2001). Validity of the Self-Directed Search Questionnaire (SDS) for work success. Unpublished master's dissertation. University of South Africa, South Africa.

Hlatshwayo, S. A. (2000). *Education and independence: education in South Africa*. Connecticut and London: Greenwood Press.

HPCSA. (2009). Retrieved on October 8<sup>th</sup>, 2009, from [www.hpcsa.co.za](http://www.hpcsa.co.za)

Hoffmann, L. L., Jackson, A. P., & Smith, S. A. (2005). Career barriers among Native American students living on reservations. *Journal of Career Development*, 32 (1), 31-45.

Hsieh H. F., & Shannon S. (2005) Three approaches to qualitative content analysis. *Qualitative Health Research*, 15, 1277–1288.

Hyslop, J. (1999). *The classroom struggle: Policy and resistance in South Africa, 1940 – 1990*. Pietermaritzburg: University of Natal Press.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, 1(2), 112-133.

Julien, H. E. (1999). Barriers to adolescents' information seeking for career decision making. *Journal of the American Society for Information Science*, 50(1), 38-48.

Kay, L. L. E., & Fretwell, D. H. (2003). *Public Policies and Career Development: a Framework for the Design of Career Information, Guidance and Counselling Services in Developing Countries: Country Report on South Africa*. Washington, DC: World Bank.

Khan, S.B., Alvi, S. A., & Kirkwood, K. J. (1990). Validity of Holland's model: A confirmatory factor analysis. *Canadian Journal of Counseling*, 43, 23-24.

- Kleiman, T., Gati, I., Peterson, G., Sampson, J., Reardon, R., & Lenz, J. (2004). Dysfunctional thinking and difficulties in career decision making. *Journal of Career Assessment*, 12, 213-331.
- Kushwaha, A. K. S., & Hasan. B. (2005). Career decision making as a function of personality dimension and gender, *Journal of the Indian Academy of Applied Psychology*, 31(1-2), 77-82.
- Kuther, T. L., & Morgan, R. D. (2007). *Careers in psychology: Opportunities in a changing world*. Thomson/Wadsworth Publishers; Australia: Belmont, CA.
- Lancaster, B. P., Rudolph, C. E., Perkins, T. S., & Patten, T. G. (1999). The reliability and validity of the Career Decision Difficulties Questionnaire. *Journal of Career Assessment*, 7(4), 393-413.
- Langley, R., du Toit, R., & Herbst, D. L. (1992). *Manual for the career development questionnaire (CDQ)*. Pretoria: Human Sciences Research Council.
- Langley, R., du Toit, R., & Herbst, D. L. (1996). *Manual for the career development questionnaire (CDQ)*. Pretoria: Human Sciences Research Council.
- Lankard, B. A. (1996). Acquiring self knowledge for career development. *ERIC Digest 175*. Retrieved 25 November, 2009, from <http://ericacve.org/docs/dig172.htm>
- Lent, R. W., & Brown, S. D. (2006). Research: a measurement guide on conceptualizing and assessing social cognitive constructs in career. *Journal of Career Assessment*, 14(1), 12–35.
- Lent R.W., Brown S. D., Talleyrand R., McPartland, E. B., Davis T., Chopra, S.B., Alexander, M. S., Suthakaran, V., & Chai, C. M. (2002). Career Choice Barriers, Supports, and Coping Strategies: College Students' Experiences. *Journal of Vocational Behavior*, 60(1), 61-72(12).
- Lent, R. W., Singley, D., Sheu, H., Schmidt, J. A., & Schmidt, L. C. (2007). Relation of Social-Cognitive Factors to Academic Satisfaction in Engineering Students. *Journal of Career Assessment*, 15 (1), 87-97.

- Leong, F. T. L., & Barak, A. (2001). Contemporary models in vocational psychology: A volume in honor of Samuel H. Osipow. Mahwah, NJ: Erlbaum.
- Lindley, L. D. (2005). Perceived barriers to career development in the context of social cognitive career theory. *Journal of Career Assessment*, 13(3), 271-287.
- Macleod, C. 2004. South African psychology and ‘relevance’: Continuing challenges. *South African Journal of Psychology*, 34, 613-629.
- Mathabe, N. R., & Temane, M. Q. (1993). The realities and imperatives of career counselling for a developing South Africa. *Journal of Career Development*, 20(1), 25-32.
- Mau, W. (2000). Cultural differences in career decision-making styles and self-efficacy. *Journal of Vocational Behavior*, 57, 365-378.
- Mau, W. C. (2001). Assessing career decision-making difficulties: a cross-cultural study. *Journal of Career Assessment*, 9, 353-364.
- Mau, W.C. (2004). Cultural dimensions of career decision-making difficulties. *The Career Development Quarterly*, 53, 67-78.
- Mbetse, D. J. (2002). The development of an intervention strategy for career education in Bushbuckridge. Unpublished master’s thesis, University of Pretoria, Pretoria, South Africa.
- McDaniel, M. A., & Snell, A. F. (1999). Holland’s theory and occupational information. *Journal of Vocational Behavior*, 55, 74–85.
- McDonald, F., & Liebenberg, J. (2006). The perceptions of employees in a private higher education institution towards corporate social responsibility. *South African Journal of Human Resource Management*, 4 (1), 27-35

- Miller, A. (2006). A sample survey of the career maturity of disadvantaged learners in the Western Cape. Unpublished Maters Dissertation, University of Stellenbosch. Western Cape.
- Mkhize, N. J., & Frizelle, K. (2000). Hermeneutic-dialogical approaches to career development: An exploration. *South African Journal of Psychology*, 30, 1-8.
- Moleke, P. (2006). Finding work: employment experiences of South African graduates. Cape Town: HSRC Press.
- Momberg, C. (2004). The relationship between personality traits and vocational interests in a South African context. Unpublished Masters Dissertation, University of Pretoria, Pretoria, South Africa.
- Morrell, R., Epstein, D., Unterhalter, E., Bhana, D. & Moletsane, R. (2009) *Towards gender equality: South African schools during the HIV and AIDS epidemic*. Scottsville: University of KwaZulu-Natal Press.
- Morgan, T., & Ness, D. (2003), Career decision making difficulties of first year students. *The Canadian Journal of Career Development*, 2, 33-37.
- Msila, V. (2007). From apartheid education to the revised national curriculum statement: Pedagogy for identity formation and nation building in South Africa. *Nordic Journal of African Studies*, 16(2), 146–160.
- Myors, B. (1996). A simple exact test for the Holland hexagon. *Journal of Vocational Behavior*, 48, 339-351.
- Naicker, S. M. (2000). From apartheid education to inclusive education: The challenges of transformation. International Education Summit for a Democratic Society. Presented by

Sigamoney Manicka Naicker Western Cape Education Department Cape Town, South Africa,  
June 26- 28, 2000.

- Naidoo, A. V., Bowman, S. L., & Gerstein, L. H. (1998). Demographics, causality, work salience, and the career maturity of African-American students: A causal model. *Journal of Vocational Behavior, 53*, 15–27.
- Osepow, S. H., & Gati, I. (1998). Construct and concurrent validity of the career decision-making difficulties questionnaire. *Journal of Career Assessment, 6*, 347-364.
- O’ Shea, A. J. (1984). In defence of Trait-And Factor Theory. *International Journal for the Advancement of Counselling, 7*, 285-288.
- Oosthuizen, M., & Bhorat, H. (2005). The Post-Apartheid South African Labour Market. Working Papers 9630, Development Policy Research Unit, University of Cape Town,.
- Painter, D., Terre Blanche, M., & Henderson, J. (2006). Critical psychology in South Africa: Histories, themes and prospects. *Annual Review of Critical Psychology, 5*, 212-235.
- Parker, I. (1997). Criteria in qualitative research in Psychology. Unpublished manuscript, Bolton Institute, Bolton.
- Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods* (2nd Ed.). Newbury Park, CA: Sage Publications, Inc.
- Patton, W., & Lokan, J. (2001). Perspectives on Donald Super’s construct of career maturity. *International for Education and Vocational Guidance, 1*, 31-48.
- Patton, W., & McMahon, M. (2006). The systems theory framework of career development and counseling: Connecting theory and practice. *International Journal for the Advancement of Counselling, 28*(2), 153-16.

- Perrone, K.M., Egisdóttir, S., Webb, L.K., & Blalock, R. H. (2006). Work-family interface: Commitment, conflict, coping, and satisfaction. *Journal of Career Development*, 32(3), 286-300.
- Pickworth, G. E. (1997). An integration of the theories of J L Holland and D A Kolb: Theoretical and empirical study of vocational personality and learning style types. Unpublished doctoral dissertation, University of Pretoria, Pretoria, South Africa.
- Prideaux, L., & Creed, P. A. (2001). Career maturity, career decision-making self-efficacy and career indecision: A review of the accrued evidence. *Australian Journal of Career Development*, 10(3), 7-12.
- Punch, E., Creed, P. A., & Hyde, M. (2006). Predicting career development in hard-of-hearing adolescents in Australia, *Journal of Deaf Studies and Deaf Education*, 10 (2), 146-160.
- Rayman, J., & Atanasoff, L. (1999). Holland's theory and career intervention: The power of the hexagon. *Journal of Vocational Behavior*, 55(1), 114-126.
- Reid-Van Niekerk, H. H., & Van Niekerk, E.C. (1990). Career maturity of black, coloured and white university students. *Journal of Industrial Psychology*, 16, (1), 1-4.
- Reardon, R. C., & Lenz, J. G. (1998). *The Self-Directed Search and related Holland career materials: A practitioner's guide*. Odessa, FL: Psychological Assessment Resources, Inc.
- Richter, L. M., Griesel, R. D., Durrheim, K., Wilson, M., Surendorff, N., & Asafo-Agyei, L. (1998). Employment opportunities for psychology graduates in South Africa: A contemporary analysis. *South African Journal of psychology*, 28 (1), 1-7.
- Roberts, K. (2006). The Career Pathways of Young Adults in the Former Soviet Union. *Journal of Educational and Work*, 19(4), 415-32.

Rojewski, J. W. (1994). Predicting career maturity attitudes in rural economically disadvantaged youth. *Journal of Career Development*, 2, 49–61.

Savickas, M. L. (2001). A developmental perspective on vocational behaviour: Career patterns, salience, and themes. *Journal for Educational and Vocational Guidance*, 1, 49–57.

Savickas, M. L., Briddick, W. C., & Watkins, C. E. (2002). The relation of career maturity to personality type and social adjustment, *Journal of Career Assessment* 10, 24–41.

Schimitt-Rodermund, E., & Silbereisen, R. K. (1998). Career maturity determinants: Individual development, social context, and historical time. *Career Development Quarterly*, 47 (1), 16-31.

Schwartz, R. N. (1992). Is Holland's theory worthy of so much attention, or should vocational psychology move on? *Journal of vocational behaviour*, 40, 179-187.

Shearer, C. B. (2006). Exploring the relationship between intrapersonal intelligence and university students' career decision making, retention and academic success. Retrieved October 15<sup>th</sup>, 2007, from [http://www.miresearch.org/files/Know\\_Thyself3.doc](http://www.miresearch.org/files/Know_Thyself3.doc)

Smart, J.C., Feldman, K. A., & Ethington, C. A. (2006). Holland's theory and patterns of college student success. Commissioned report for the national symposium on postsecondary student success: Spearheading a dialog on student success.

Smart, R., & Peterson, C. (1997). Super's career stages and the decision to change careers. *Journal of Vocational Behaviour*, 51, 358-374.

Smith, J. (1997). Career factor inventory. Retrieved Oct 13<sup>th</sup>, 2009, from <http://www.careerstrengthsaudit.co.uk/careerfactorinventory.pdf>

Spens, K. M., & Kovacs, G. (2005). A content analysis of research approaches in logistics research, *International Journal of Physical Distribution and Logistics Management Journal*, 36, 374-390.



- Stead, G. B. (2004). Culture and career psychology: A social constructionist perspective. *Journal of Vocational Behavior*, 64, 389–406.
- Stead, G. B. (2002). The transformation of psychology in a post-apartheid South Africa: An Overview. *International Journal of Group Tensions*, 31(1), 79-102.
- Stead, G. B. (2007). Integrating culture into vocational psychology theory and research. In S. Soresi & L. Nota (Co-chairs), *Vocational psychology and career guidance practice: An international partnership*. Symposium conducted at the joint meeting of the International Association for Educational and Vocational Guidance, Society for Vocational Psychology, and National Career Development Association, Padua, Italy. September 2007.
- Stead, G. B., & Watson, M. B. (1993). How similar are the factor structures of the Career Decision Scale, the Career Decision Profile, and the Career Factors Inventory? *Educational and Psychological Measurement*, 53, 281-290.
- Stead, G. B., & Watson, M. B. (1998). The appropriateness of Super's career theory among Black South Africans. *South African Journal of Psychology*, 28, 40–43.
- Stead, G. B., & Watson, M. B. (2006). *Career psychology in the South African context*. (2nd edition) Van Schaik.
- Suffla, S., & Seedat, M. (2004). How has psychology fared over ten years of democracy? Achievements, challenges and questions. *South African Journal of Psychology*, 34(4), 513-519.
- Super, D. E. (1983). Assessment of career guidance: Toward truly developmental counselling. *Personnel and Guidance Journal*, 61(19), 555 – 562.

- Super, D. E., Crites, J. O., Hummel, R. C., Moser, H. P., Overstreet, P. L., & Warnath, C. F. (1957). *Vocational development: A framework for research*. New York: Teachers College Press.
- Swanson, J. L., & Hanson, J. C. (1988). Stability of vocational interests over 4-year, 8-year, and 12-year intervals. *Journal of Vocational Behavior*, 33, 185-202.
- Talib, M. A., & Aun. T. K. (2009). Predictors of career indecision among Malaysian undergraduate students. *European Journal of Social Sciences*, 8 (2), 215-224.
- Tere Blanche, M., & Kelly, K. (2002). Interpretive Methods (chapter 7). In Tere blanche, M. Durrheim, K. (2002). *Research in practice: Applied methods for the social sciences* (pp 123-146). Cape Town: Cape Town University Press.
- Tien, H. L. S. (2005). The validation of the career decision making difficulties scale in a Chinese culture. *Journal of Career Assessment*, 13, 114-127.
- Trait Theory. Retrieved on the 8<sup>th</sup> October, 2009, from [http://wapedia.mobi/en/Trait\\_theory](http://wapedia.mobi/en/Trait_theory)
- Types and meaning of difficulty. (2008). Retrieved on 13<sup>th</sup> October, from [www.cddq.org](http://www.cddq.org)
- Watson, M. B., Stead, G. B., & De Jager, A. C. (1995). The career development of black and white South African university students. *International Journal for the Advancement of Counselling*, 18, 39-47.
- Watson, M., Duarte, M. E., & Glavin, K. (2005). Cross-cultural perspectives on career assessment. *The Career Development Quarterly*, 54, 29-35.
- Watson, M. B., & Stead, G. B. (2002). Career psychology in South Africa: Moral perspectives on present and future directions. *South African Journal of Psychology*, 32, 26-31.

- Webber, S., & Zhu, W. (2007). Employment information needs of Chinese young adults in Sheffield. *Journal of Librarianship and Information Science*, 39(4), 223-233.
- Westbrook, B. W. (1983). Career maturity: The concept, the instruments, and the research. In Walsh, W. B., & Osipow, S. H. (Eds.). *Handbook of vocational psychology*. (pp. 61-303). Hillsdale, NJ: Erlbaum.
- Wilson, M., Richter, L. M., Durrheim, K., Surrendorf, N., & Asafo-Agyei, L. (1999). Professional psychology: Where are we headed? *South African Journal of psychology*, 29(4), 184.
- Whitley, B. E. (2002). *Principles of behavioural science*. Boston: McGraw Hill.
- White, P. (2007). *Education and career choice: A new model of decision making*. London: Palgrave Mcmillan.
- Witko, K. D., Bernes, K. B., Magnusson, K. C., & Bardick, A. D. (2005). Senior high career planning: What students want. *Journal of Educational Inquiry*, 6(1), 34–49.
- Woodd, M. (2000). The psychology of career theory—a new perspective? *Career Development International*, 6, 273-278.
- Vondracek, F. W., & Porfeli, E. J. (2002). Integrating person and function centered approaches in career development theory and research. *Journal of Vocational Behavior*, 61(3), 386-397.
- Yorke, M., & Harvey, L. (2005). Graduate attributes and their development. *New Directions for Institutional Research*, 128, 41-58.
- Zhou, D., & Santos, A. (2007). Career decision-making difficulties of British and Chinese international university students. *British Journal of Guidance and Counselling*, 35, 219-235.

## APPENDICES

### APPENDIX A: CDDQ QUESTIONNAIRE

#### Career Decision-Making Difficulties Questionnaire

This questionnaire's aim is to locate possible difficulties and problems related to making career decisions.

Please begin by filling in the following information:

Age: \_\_\_\_\_

Number of years of education: \_\_\_\_\_

Sex: *Female / Male*

Have you considered what field you would like to major in or what occupation you would like to choose?

*Yes / No*

If so, to what extent are you confident of your choice?

*Not confident at all* 1 2 3 4 5 6 7 8 9 *Very confident*

Next, you will be presented with a list of statements concerning the career decision-making process. Please rate the degree to which each statement applies to you on the following scale:

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

Circle 1 if the statement does not describe you and 9 if it describes you well. Of course, you may also circle any of the intermediate levels.

Please do not skip any question.

**For each statement, please circle the number which best describes you.**

1. I know that I have to choose a career, but I don't have the motivation to make the decision now ("I don't feel like it").

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

2. Work is not the most important thing in one's life and therefore the issue of choosing a career doesn't worry me much.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

3. I believe that I do not have to choose a career now because time will lead me to the "right" career choice.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

4. It is usually difficult for me to make decisions.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

5. I usually feel that I need confirmation and support for my decisions from a professional person or somebody else I trust.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

6. I am usually afraid of failure.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

7. I like to do things my own way.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

8. I expect that entering the career I choose will also solve my personal problems.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

9. I believe there is only one career that suits me.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

10. I expect that through the career I choose I will fulfill all my aspirations.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

11. I believe that a career choice is a one-time choice and a life-long commitment.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

12. I always do what I am told to do, even if it goes against my own will.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

13. I find it difficult to make a career decision because I do not know what steps I have to take.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

14. I find it difficult to make a career decision because I do not know what factors to take into consideration.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

15. I find it difficult to make a career decision because I don't know how to combine the information I have about myself with the information I have about the different careers.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

16. I find it difficult to make a career decision because I still do not know which occupations interest me.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

17. I find it difficult to make a career decision because I am not sure about my career preferences yet (for example, what kind of a relationship I want with people, which working environment I prefer).

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

18. I find it difficult to make a career decision because I do not have enough information about my competencies (for example, numerical ability, verbal skills) and/or about my personality traits (for example, persistence, initiative, patience).

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

19. I find it difficult to make a career decision because I do not know what my abilities and/or personality traits will be like in the future.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

20. I find it difficult to make a career decision because I do not have enough information about the variety of occupations or training programmes that exist.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

21. I find it difficult to make a career decision because I do not have enough information about the characteristics of the occupations and/or training Programme s that interest me (for example, the market demand, typical income, possibilities of advancement, or a training Programme 's perquisites).

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

22. I find it difficult to make a career decision because I don't know what careers will look like in the future.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

23. I find it difficult to make a career decision because I do not know how to obtain additional information about myself (for example, about my abilities or my personality traits).

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

24. I find it difficult to make a career decision because I do not know how to obtain accurate and updated information about the existing occupations and training Programme s, or about their characteristics.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

25. I find it difficult to make a career decision because I constantly change my career preferences (for example, sometimes I want to be self-employed and sometimes I want to be an employee).

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

26. I find it difficult to make a career decision because I have contradictory data about my abilities and/or personality traits (for example, I believe I am patient with other people but others say I am impatient).

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

27. I find it difficult to make a career decision because I have contradictory data about the existence or the characteristics of a particular occupation or training Programme .

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

28. I find it difficult to make a career decision because I'm equally attracted by a number of careers and it is difficult for me to choose among them.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

29. I find it difficult to make a career decision because I do not like any of the occupation or training Programme s to which I can be admitted.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

30. I find it difficult to make a career decision because the occupation I am interested in involves a certain characteristic that bothers me (for example, I am interested in medicine, but I do not want to study for so many years).

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

31. I find it difficult to make a career decision because my preferences can not be combined in one career, and I do not want to give any of them up (e.g., I'd like to work as a free-lancer, but I also wish to have a steady income).

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

32. I find it difficult to make a career decision because my skills and abilities do not match those required by the occupation I am interested in.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

33. I find it difficult to make a career decision because people who are important to me (such as parents or friends) do not agree with the career options I am considering and/or the career characteristics I desire.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

34. I find it difficult to make a career decision because there are contradictions between the recommendations made by different people who are important to me about the career that suits me or about what career characteristics should guide my decisions.

*Does not describe me* 1 2 3 4 5 6 7 8 9 *Describes me well*

Finally, how would you rate the degree of your difficulty in making a career decision?

*Low* 1 2 3 4 5 6 7 8 9 *High*



## APPENDIX B: APPROVAL LETTER FOR USE OF THE CDDQ

**Itamar Gati, Ph.D.**  
**School of Education, Hebrew University, Jerusalem, ISRAEL**

e-mail: itamar.gati@huji.ac.il

Fax: (+972)-2-5882084

If you agree to the following conditions, please sign the attached statement, indicate the number of copies you desire to reproduce for your research, and mail 2 copies to me at the above address. When I receive the signed copies I will send you a copy of the CDDQ along with your copy of the signed permission slip that will allow you to reproduce the instrument. Please limit requests to no more than 1000 at a time. If you need more, please let me know. Permission expires one year after it is granted.

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3. I will share the results of my research with Gati and Osipow and provide specific data for secondary analysis with the understanding that appropriate credit will be cited.
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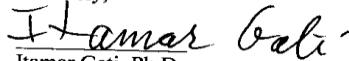
E-mail: mubiapb@unisa.ac.za

Signature 

Fax: +27124293414 Tel: \_+27124298577\_

Address PO Box 392, Unisa, 0003, South Africa

Sincerely,

  
Itamar Gati, Ph.D.

Permission is not granted without the signature of Itamar Gati in this space.



## APPENDIXC: CDQ QUESTIONNAIRE

Vertroulik  
Confidential

2491

### Loopbaanontwikkelingsvraelys (LOV) Career Development Questionnaire (CDQ)

Raad vir Geesteswetenskaplike Navorsing  
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## LOOPBAANONTWIKKELINGS- VRAELYS (LOV)

### A. AANWYSINGS

Vul die volgende besonderhede met 'n HB-potlood op die toepaslike antwoordblad in.

- (a) Jou VAN en VOORLETTERS.
- (b) AREA.
- (c) SKOOL.
- (d) TOETSLINGNOMMER.
- (e) OUDERDOM: Voltooide jare.
- (f) TAAL (Huis taal): Kleur die toepaslike ovaal ruimte in (indien nie een van die genoemde tale van toepassing is nie kleur ANDER in).
- (g) GESLAG: Kleur die toepaslike ovaal ruimte in.
- (h) GRAAD: Die graad waarin jy nou is of die hoogste graad wat jy geslaag het indien jy reeds die skool verlaat het.
- (i) TOETSAFNEMER: Van en voorletters van die toetsafnemer.
- (j) DATUM: Dag van toetsing.

**MAAK SEKER DAT ALLE GEGEWENS  
KORREK EN VOLLEDIG INGEVUL IS.**

## CAREER DEVELOPMENT QUESTIONNAIRE (CDQ)

### A. INSTRUCTIONS

Complete the following details on the appropriate answer sheet with a HB pencil.

- (a) Your SURNAME and INITIALS.
- (b) AREA.
- (c) SCHOOL.
- (d) TESTEE NUMBER.
- (e) AGE: Completed years.
- (f) LANGUAGE (Home language): Shade the appropriate oval space (if none of the mentioned languages apply, then shade OTHER).
- (g) SEX: Shade the appropriate oval space.
- (h) GRADE: The grade in which you are at present or the highest grade that you have passed if you have left school.
- (i) TESTER: Surname and initials of tester.
- (j) DATE: Day of testing.

**PLEASE MAKE SURE THAT ALL  
PARTICULARS ARE COMPLETED  
CORRECTLY AND IN FULL.**



**B. ALGEMENE INLIGTING**

**1. INLEIDING**

Loopbaanbeplanning en die neem van beroepsbesluite lê op ons almal se weg. Indien ons doeltreffend in ons' beroepsbesluitneming is, beteken dit dat ons tot beroepe toetree waarin ons kan presteer en waarin ons gelukkig kan wees. Die vraelys wat julle gaan voltooi, staan bekend as die Loopbaanontwikkelingsvraelys (LOV).

**2. DOEL**

Die doel met die LOV is om aan te dui ten opsigte van welke loopbaanontwikkelingsaspekte jy moontlik probleme mag ervaar. Deur hierdie inligting te bekom, kan die nodige regstellende stappe geneem word.

**3. DIE VRAELYS**

Hierdie is 'n vraelys en nie 'n toets nie. Daar is dus geen regte of verkeerde antwoorde nie. Hierdie vraelys bevat 'n aantal stellings wat verband hou met loopbaanontwikkeling. Lees elke stelling en besluit of jy daarmee saamstem of nie.

**4. BEANTWOORDING VAN DIE VRAELYS**

Beantwoord die vrae op die antwoordblad deur die spesifieke ovaal spasie van jou keuse in te kleur.

**B. GENERAL INFORMATION**

**1. INTRODUCTION**

Everyone has to plan his career and make decisions concerning his occupation. If we make effective decisions, it means we enter occupations in which we can achieve and be happy. The questionnaire you are going to complete, is known as the Career Development Questionnaire (CDQ).

**2. AIM**

The aim of the CDQ is to indicate in what particular area of career development you might possibly experience problems. Obtaining this information makes corrective measures possible.

**3. THE QUESTIONNAIRE**

This is a questionnaire and not a test. Consequently there are no correct or incorrect answers. This questionnaire contains a number of statements related to career development. Read each statement carefully and decide whether you agree or disagree with it.

**4. ANSWERING THE QUESTIONNAIRE**

Answer the questions on the answer sheet by shading in the particular oval space of your choice.



Jou antwoord op 'n stelling sal 'n keuse wees tussen: **True/Waar** en **False/Onwaar**.

Merk **True/Waar (T/W)** indien jy met die stelling **saamstem** of **meestal saamstem**. (As dit **waar** is na jou mening.)

Merk **False/Onwaar (F/O)** indien jy van die stelling **verskil** of **meestal daarvan verskil**. (As dit **onwaar** is na jou mening.)

Voorbeelde:

- (a) Ek wil 'n beroep kies wat my in staat sal stel om eendag welgesteld te wees.

T/W F/O

- (b) Ek dink gedurig aan die beroep wat ek wil volg

T/W F/O

##### 5. VERDERE INLIGTING

Werk vinnig, maar so netjies en akkuraat as moontlik. Indien enige vraag onduidelik is, mag jy jou hand opsteek om duidelikheid daaroor te verkry. Probeer om die vraeys binne sowat 30 tot 40 minute in te vul. Sorg dat jy **ELKE KEER DIE VRAAG LANGS DIE OOR-EENSTEMMENDE NOMMER OP DIE ANTWOORDBLAD BEANTWOORD**. Sorg dat jy elke vraag beantwoord. Jy mag nie merke in hierdie boekie of onnodige merke op die antwoordblad maak nie. Vee skoon uit wanneer jy 'n antwoord wil verander.

MOENIE OMBLAAI VOORDAT DIT AAN JOU GESÊ WORD NIE.

Your response to a statement will be a choice between: **True/Waar** and **False/Onwaar**.

Mark **True/Waar (T/W)** if you **agree** or **mainly agree** with the statement. (If it is **true** in your opinion.)

Mark **False/Onwaar (F/O)** if you **disagree** or **mainly disagree** with the statement. (If it is **untrue** in your opinion.)

Examples:

- (a) I wish to choose an occupation which will make me well-to-do one day.

T/W F/O

- (b) I constantly think about the occupation that I intend entering.

T/W F/O

##### 5. ADDITIONAL INFORMATION

Work quickly but as neatly and accurately as possible. If any question is not clear, you may raise your hand in order to obtain an explanation. Try to complete the questionnaire within 30 to 40 minutes. Make sure that you **ALWAYS ANSWER THE QUESTION NEXT TO THE NUMBER ON THE ANSWER SHEET THAT CORRESPONDS WITH IT**. Make sure you answer each question. You may not make any unnecessary marks on the booklet or on the answer sheet. Erase carefully when you want to change an answer.

DO NOT TURN THE PAGE BEFORE YOU ARE TOLD TO DO SO.



A. SELFINGLIGTING (SI)

1. Ek is tevrede met hoe ek my verantwoordelikhede tans nakom.
2. Ek het 'n duidelike beeld in my gedagte van hoe dit in my toekomstige beroep sal wees.
3. Ek ken my sterk en my swak punte.
4. Ek weet wat ek goed kan doen.
5. Ek voel dat ek dit wat vir my belangrik is in die lewe op die huidige tydstip kan ultiel.
6. Ek beskou dit belangrik om my vermoëns ten volle in my toekomstige beroep uit te leef.
7. Ek wil graag 'n beroep kies waarin ek my oortuigings kan ultiel.
8. Ek voel dat ek my toekomstige beroep wil geniet.
9. Wanneer ek werklik belangstel in dit wat ek doen, kan ek ure lank daarmee voortgaan.
10. Ek glo 'n belangrike deel van werk is die bevrediging wat jy verkry deur dit te doen.
11. My belangstelling verander voortdurend.
12. Op die oomblik voel ek dat ander persone meer begaan is oor my toekoms as ek.
13. Ek kan nie verstaan hoe party mense so seker kan wees van wat hulle eendag wil word nie.
14. Ek vind dat die eise wat aan my gestel word met mekaar bots (bv. skool/universiteit, tuis, sport, die gemeenskap en vriende).
15. Ek vind werk meestal verveleg en onaangenaam.
16. Ek voel daar is 'n groot verskil tussen wat ek tans is en wat ek graag wil wees.
17. Dit maak nie saak watter beroep ek kies nie, solank die betaling goed is.
18. Ek veronderstel almal moet seker vroeër of later gaan werk, maar ek sien nie daarna uit nie.

A. SELF-INFORMATION (SI)

1. I am satisfied with the way in which I am carrying out my responsibilities at present.
2. I have a clear mental picture of what it will be like in my future occupation.
3. I know my strengths and weaknesses.
4. I know the things I am good at.
5. I feel that at present I can experience to the full those things which I regard as the most important in my life.
6. I consider it important to use my abilities to the full in my future occupation.
7. I want to choose an occupation that allows me to do what I believe in.
8. I feel that I want to enjoy my future occupation.
9. When I am really interested in what I am doing, I can keep at it for hours.
10. I believe that an important part of work is the satisfaction one gets from doing it.
11. My interests change all the time.
12. At present I feel that other people are more concerned about my future plans than I am.
13. I cannot understand how some people can be so certain about what they want to become one day.
14. I find that the demands made on me are in conflict with one another (e.g. school/university, home, sport, community and friends).
15. I find most work dull and unpleasant.
16. I feel that there is a great difference between what I am at present and what I would like to be.
17. It does not matter what occupation I choose so long as it pays well.
18. I suppose everybody has to go to work sooner or later, but I do not look forward to it.



19. Ek is tans meer idealisties as realisties wanneer ek aan 'n toekomstige beroep dink.
20. Ek wil graag 'n beroep kies waarin ek eendag beroemd kan word.

**B. BESLUITNEMING (B)**

21. Ek het 'n duidelike doel wanneer ek aan my toekomstige beroep dink.
22. Ek is 'n effektiewe besluitnemer.
23. Wanneer ek met iets begin, voer ek dit gewoonlik deur.
24. Ek is bewus van moontlike alternatiewe wat ek in die beroepsveld van my keuse kan oorweeg.
25. Wanneer dit by beroepskeuse kom, sal ek my eie besluite neem.
26. Ek kan gewoonlik aan maniere dink om belangrike probleme in my daaglikse lewe op te los.
27. Ek is gemotiveerd om die nodige loopbaanbesluite te neem wat in hierdie stadium van my verwag word.
28. Daar is meer as een wyse om die doel te bereik wat ek vir myself gestel het.
29. Ek weet nie regtig hoe om planmatig 'n besluit te neem nie.
30. Ek verander dikwels van beroepskeuse.
31. Ek dagdroom dikwels oor wat ek wil word, maar het nog nie 'n beroepsbesluit geneem nie.
32. Ek vind dit moeilik om prioriteite te bepaal ten opsigte van dit wat vir my belangrik is.
33. Ek voel dikwels doelloos wanneer ek oor my toekomstige loopbaan dink.
34. Dit is vir my moeilik om besluite oor belangrike sake te neem.
35. Ek verkies dat ander namens my besluite neem as dit by gewigtige sake soos 'n beroepskeuse kom.

19. At present I am more idealistic than realistic when I think of a future occupation.

20. I want to choose an occupation in which I can become famous one day.

**B. DECISION MAKING (DM)**

21. I have a clear goal in mind when I think about my future occupation.
22. I am an effective decision maker.
23. When I start something, I can usually see it through.
24. I am aware of possible alternatives which I can consider in my chosen occupational field.
25. When I come to choosing an occupation, I'll make up my own mind.
26. I can usually think of ways to solve important problems in my daily life.
27. I am motivated to take the necessary career decisions that are expected of me at this stage.
28. There is more than one way to go about reaching a goal I set for myself.
29. I do not really know how to make a planned decision.
30. I often change my mind about my choice of occupation.
31. I often daydream about what I want to be, but I really have not decided on an occupational choice yet.
32. I find it difficult to decide on priorities in respect of things that are important to me.
33. I frequently feel aimless when I think of my future career.
34. I find it hard to make up my mind about important matters.
35. I prefer others to make decisions for me concerning important matters such as choosing an occupation.





36. Ek is geneig om impulsief besluite te neem.
37. Dit is wenslik om verskeie beroepe op die proef te stel en dan die een te kies waarvan ek die meeste hou.
38. Ek sal moontlik 'n beroep moet kies waarin ek nie regtig belangstel nie.
39. Ek sien beroepskeuse as 'n probeer-en-trefaksie eerder as 'n planmatige besluitnemingsproses.
40. Dit is onnodig om te veel aandag aan die keuse van 'n beroep te bestee, aangesien iets wel vroeër of later sal opduik.

#### C. LOOPBAANINLIGTING (LI)

41. Ek dra kennis van verwante beroepe in die beroepsveld waarin ek belangstel.
42. Ek het alreeds met persone gesels wat in die praktyk staan in die beroep wat ek tans oorweeg.
43. Ek weet hoe 'n tipiese werksdag sal wees in die beroep wat ek beoog.
44. Ek weet hoe om meer inligting in te win oor moontlike beroepe wat ek in gedagte het.
45. Ek het reeds pamflette en boeke geraadpleeg om meer inligting oor toekomstige beroepe te verkry.
46. Ek weet watter opleiding as die geskikste beskou word vir die beroep waarin ek belangstel.
47. Ek het meer uitgevind omtrent loopbaanmoontlikhede by 'n biblioteek of ander bron van inligting.
48. Ek dra kennis van alternatiewe maniere waarop ek opgelei kan word vir 'n toekomstige beroep.
49. Ek het 'n idee watter salaris persone ontvang in die beroep waarin ek belangstel.
50. Ek het 'n spesiale poging aangewend (bv. navrae, leeswerk) om meer inligting in te win oor die beroepe waarin ek belangstel.

36. I am inclined to make impulsive decisions.
37. It is sensible to try out several occupations, and then choose the one I like best.
38. I may possibly have to decide on an occupation that I am not really interested in.
39. I see choosing an occupation as a trial-and-error action rather than as a planned decision-making process.
40. It is unnecessary to spend too much effort on the choice of an occupation; something will turn up sooner or later.

#### C. CAREER INFORMATION (CI)

41. I am aware of related occupations in the occupational field I am interested in.
42. I have already spoken to people who are employed in the occupation that I am considering at present.
43. I know what a typical workday will be like in the occupation I am considering.
44. I know what to do to obtain more information on possible occupations I have in mind.
45. I have already consulted pamphlets and books about future occupations.
46. I know what the most suitable training would be for the occupation that I am interested in.
47. I obtained more information about career possibilities by using a library or other source of information.
48. I am aware of alternative ways in which I can obtain training for a future occupation.
49. I have an idea what salaries people earn in the occupational field I am interested in.
50. I made a special effort (e.g. enquiries, reading relevant literature) to obtain more information on the careers I am interested in.



51. Ek weet wat die vooruitsigte is om werk te vind in die loopbaanrigting waarin ek belangstel.
  52. Ek weet wat die vraag na persone is in die beroep wat ek beoog.
  53. Ek is onseker of my vakkeuse korrek is vir die beroep wat ek tans oorweeg.
  54. Ek weet nie watter kunsusse om te neem om voor te berei vir my toekomstige beroep nie.
  55. Ek het min of geen idee hoe dit sal voel om voltyds te werk nie.
  56. Ek weet baie min van die werksvereistes van verskillende beroepe.
  57. Ek dink selde na oor die beroep wat ek wil volg.
  58. Ek kan regtig nie aan 'n beroep dink wat vir my geskik is nie.
  59. Die enigste manier om uit te vind of ek van 'n beroep sal hou, is om dit eers te beoefen.
  60. Dit is nie vir my so belangrik om iets omtrent die werksomstandighede van 'n spesifieke pos te weet nie (bv. werk met mense/dinge, binnenshuis/buitenshuis).
51. I know what the future outlook is for employment in the occupational field I am interested in.
  52. I know what the demand is for people in the occupation I have in mind.
  53. I am not sure if my choice of subjects is suitable for the occupation I have in mind.
  54. I do not know what study courses to take to prepare for my future occupation.
  55. I have little or no idea of what working full time will be like.
  56. I know very little about the working requirements of various occupations.
  57. I seldom think about the occupation that suits me.
  58. I really cannot think of any occupation that suits me.
  59. Entering an occupation is the only way in which I can learn whether I might like it.
  60. Knowing about the work conditions of a job is not that important to me (e.g. working with people/things, indoors/outdoors).

**D. INTEGRERING VAN SELF-INLIGTING MET LOOPBAANINLIGTING (I)**

61. Ek dink ek verstaan hoe om my eie vermoëns en potensiaal te benut in die beroep wat ek oorweeg.
62. Ek weet hoe my belangstellings en vermoëns by verskillende beroepe sal aanpas.
63. Ek behoort te kan identifiseer met die beleid van die organisasie waarby ek om 'n betrekking aansoek doen.
64. Ek beskik oor die persoonlikheids-eienskappe wat nodig is vir die beroep wat ek oorweeg.
65. Dit is belangrik om te weet hoe 'n sekere beroep my lewenswyse sal raak.
66. Hoe beter my persoonlikheid by my werksomgewing pas, hoe meer werkstevredenheid behoort ek te ervaar.

**D. INTEGRATION OF SELF-INFORMATION WITH CAREER INFORMATION (I)**

61. I think I understand how to apply my own abilities and potential in the occupation I am considering.
62. I know how my interests and abilities might relate to different kinds of jobs.
63. I should be able to identify with the policy of the organization to which I am applying for a job.
64. I have the personal qualities that are needed for the career I am considering.
65. It is important to know how a certain occupation will affect my lifestyle.
66. The closer my personality and working environment relate to each other, the more job satisfaction I should experience.



67. Voordat ek 'n beroepsbesluit neem sal ek eers inligting oor verskillende beroepe inwin en 'n vergelyking tref van hoe tevrede ek met elkeen sal wees.
68. Dit is belangrik om te weet watter soort persoon ek is voordat ek 'n beroep kies.
69. Dit is belangrik om my eie vermoëns en belangstellings in 'n verskeidenheid situasies en aktiwiteite uit te toets.
70. Ek wil graag in 'n beroepsomgewing werk waarin ek myself kan wees.
71. Ek weet nie of ek oor die persoonlike eienskappe beskik wat my beoogde beroep vereis nie.
72. Ek is nog nie gereed om 'n beroepsbesluit te neem nie aangesien selfkennis of kennis omtrent beroepe ontbreek.
73. Ek weet nie of ek realisties is in terme van hoe ek my in 'n bepaalde beroep sien nie.
74. Ek ken my vermoëns en die wêreld-van-werk nog nie goed genoeg om te weet hoe dit bymekaar kan inpas nie.
75. Ek het nie die intellektuele vermoë om 'n sukses te maak van die beroep waarin ek belangstel nie.
76. Ek weet nie of my toekomstige beroep my die geleentheid sal gee om die soort persoon te wees wat ek graag wil wees nie.
77. Ek wens dikwels dat ek 'n werk kan doen wat ek vermoed buite my vermoëns val.
78. Ek sal waarskynlik weens omstandighede gedwing word om 'n betrekking te aanvaar waarin ek nie sal pas nie.
79. Ek dink die meeste mense het die vermoë om in enige tipe werk goed te doen.
80. Volgens 'n persoon se vermoëns is daar slegs een regte werk vir hom of haar.
67. Before making a career decision, I will obtain information about different jobs, and compare how satisfied I would be in each.
68. In making an occupational choice, I need to know what kind of person I am.
69. It is important that I try out my own abilities and interests in a variety of activities and situations.
70. I would very much like to work in an occupational environment in which I can be myself.
71. I do not know if I have the personal qualities which are required in my planned occupation.
72. I am not ready to choose an occupation yet as I do not have enough knowledge about myself or about occupations.
73. I do not know if I am realistic in terms of the way in which I see myself in a specific occupation.
74. I do not yet know my abilities and the world-of-work well enough to know how they can best fit together.
75. I lack the intellectual ability to make a success of the career I am interested in.
76. I am unsure that my future occupation will provide me with the opportunity of being the person I would like to be.
77. I spend a lot of time wishing I could do work that I know I probably cannot do.
78. It seems probable that circumstances will force me to accept a job to which I am not suited.
79. I think most people have the ability to do well in any kind of job.
80. In the light of his or her abilities there is only one right job for a person.



E. LOOPBAANBEPLANNING (LB)

81. Ek het 'n duidelike idee van watter stappe ek moet volg om my loopbaan te beplan.
82. Ek het duidelikheid oor wat my te doen staan om my loopbaandoelwitte te bereik.
83. Ek weet waar om 'n opgeleide professionele persoon (soos 'n beroepsvoorligter) te raadpleeg as ek probleme in verband met my loopbaanplanne wil bespreek.
84. Ek het al planne uitgewerk om my loopbaandoelwitte te bereik.
85. Ek ken die basiese prosedure wat gevolg moet word om aansoek te doen om 'n pos.
86. Ek het al met 'n volwasse persoon wat ek goed ken, oor my loopbaanplanne gesels.
87. Ek het al stappe gedoen om my beter toe te rus as 'n goeie werker.
88. Ek gesels dikwels oor my toekomsplanne met persone wie se mening ek van waarde ag.
89. Ek het vorige ondervinding van vakansie- of deelydse werk.
90. Ek voel in staat om al die nodige opleiding te voltooi vir die beroep wat ek oorweeg.
91. Ek sien loopbaanbeplanning as 'n proses wat lewenslank duur.
92. Ek vind dit moeilik om my voor te berei vir die beroep wat ek wil volg.
93. Daar is niks wat ek daaraan kan doen as my ouers nie die finansiële vermoë het om my verder te laat studeer nie.
94. Ek het 'n baie goeie idee van watter beroep ek wil volg, maar ek weet nie hoe om te werk te gaan om daarby uit te kom nie.
95. Ek is onseker oor watter studiekursusse of beroep om te volg.
96. Ek het geen spesifieke beroep in gedagte met die kursus wat ek tans volg nie.
97. Ek beskou dit as onnodig om 'n loopbaan te beplan aangesien daar niks is wat ek daaraan kan doen om iets te laat gebeur nie.

E. CAREER PLANNING (CP)

81. I have a clear idea of what steps to take to plan my career.
82. It is very clear to me what I have to do to reach my career goals.
83. I know where to contact a trained professional (such as a guidance counsellor) if I have a career problem that I wish to discuss.
84. I have already made plans to reach my career goals.
85. I know the basic procedure for applying for a job.
86. I have already discussed my career plans with an adult whom I know very well.
87. I have already taken steps to better equip myself as a good worker.
88. I often discuss my future plans with people whose opinion I value.
89. I have previous experience of holiday or part-time work.
90. I feel capable of completing all the necessary training for the career I am considering.
91. I regard career planning as a process that continues throughout life.
92. I have difficulty in preparing myself for the occupation I want to enter.
93. There is nothing I can do if my parents do not have the financial means to provide for my further education.
94. I have a pretty good idea of the occupation I want to enter, but I do not know how to go about it.
95. I am uncertain about what study courses to take or what occupation to choose.
96. I do not have any specific career in mind with the course I am taking at the moment.
97. I think it is unnecessary to plan a career as there is nothing I can do to make things happen.



98. Slegs die tyd kan leer hoe ek my loopbaandoelstelling moet verwesenlik en daarom bekommer ek my nie daaroor nie.
99. Wanneer ek 'n nuwe pos aanvaar, sal die belangrikste wees om aan almal duidelik te stel hoe ek oor sake voel.
100. Ek het 'n behoefte om meer omtrent loopbaanbeplanning te leer.

98. Only time can tell how I can reach my career goals, therefore I shall not worry about them now.
99. When I accept a new job the most important thing will be to let everyone know exactly what my opinion is.
100. I have a need to learn more about career planning.

## APPENDIX D: LETTERS OF INFORMED CONSENT



Faculty of Humanities  
Department of Psychology  
Tel: (012) 420-2305 / 2329  
Fax: (012) 420-2404  
annaliepauw@gmail.com

### LETTER OF CONSENT

Principal Investigator: Precious Mubiana  
Contact Details Tel: 012 429 8577  
Email: busichi@yahoo.com

The aim of the study is to explore how career and self knowledge impacts on career decision making of Psychology Honours students. Your input to this study will be highly appreciated.

You are requested to complete two questionnaires, Career Development Questionnaire (CDQ) and the Career Difficulties Decision-Making Questionnaire (CDDQ), which are meant to determine the levels of maturity in career decision making processes as well as the level of career decision making difficulties. The questionnaires take about 30 minutes each to complete. You will also be asked to answer three open-ended questions.

All information obtained during the course of this study remains confidential. Please note also that your participation in this research is completely voluntary.

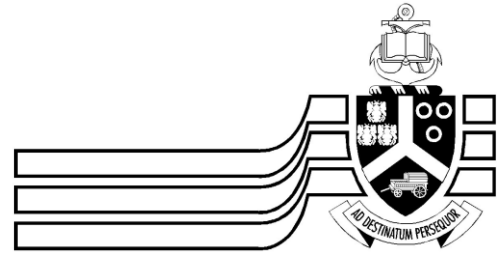
Should you feel uncomfortable during your participation in this research, you may withdraw at any given time without negative consequences.

\_\_\_\_\_  
Participant signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Place

## APPENDIX E: QUALITATIVE INTERVIEW SCHEDULE



University of Pretoria

Faculty of Humanities  
Department of Psychology  
Tel: (012) 420-2305 / 2329  
Fax: (012) 420-2404  
annaliepauw@gmail.com

### QUALITATIVE INTERVIEW SCHEDULE

This interview schedule forms part of a study that aims to explore how career and self knowledge impacts on career decision making of Psychology Honours students. Your input to this study will be highly appreciated.

**Please answer the following questions open-ended questions on a separate piece of paper to the best of your abilities.**

1. What are your future career plans?
2. What is your Plan A?
3. What is your Plan B?

**Thank you**

**Precious Mubiana: Principal investigator**