CAREER INDECISION AMONGST PROSPECTIVE UNIVERSITY STUDENTS

by

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ABSTRACT

Career indecision is one of the key aspects that professionals in career guidance counselling are interested in assessing. Career indecision, in the context of university students has been defined as the “inability to select a university major or occupation” (Borgen & Hiebert, 2006, p. 58). Thus, with the purpose of addressing career indecision, the proposed study would examine the nature thereof amongst prospective university students. The prevalence of specific aspects of career maturity (namely, self-information, decision-making, career information, integration of self-information and career information, and career planning) underlying career indecision will be investigated, as well as the correlations between these aspects. In addition, the correlations between the aspects of career maturity and certain biographical variables such as gender, home language, declared career choice, differentiation of interests, and self-reported level of career indecision will be examined. Thus, career indecision is encapsulated as either a trait or state an individual encompasses.

The term career indecision has been widely used with reference to problems relating to career development, particularly problems in making career-related decisions. The construct of career indecision is strongly coupled with society’s expectations of certain chosen career paths and a strong belief that many should pursue these careers. Therefore, current societal trends push people to revise their career decisions over their life spans. As a result the perceptions and expectations that society holds can gravely impact a student’s level of career readiness and the lack thereof. Furthermore, the role of the family as a
fundamental influence on the career development of adolescents and young adults has been stressed by some classic theories of career development and choice. However, the exact nature and degree of the family’s influence on career decision making is not completely understood. Thus, cognizance should be taken of the fact that there are multiple facets impacting on the levels of career indecision experienced by some and not all, prospective university students. Furthermore, deciding on a career is an most important aspect of individual’s development and satisfaction and establishing what they are suited to do, and securing an opportunity to do it, is imperative to an individual’s life goals. A biographical and Career Decision Making Difficulties Questionnaire was administered to respondents.

The sample group (N=200) consists of Grade 10, 11 and 12 male and female students from model c, private and lower income schools in the Somerset West District in the Western Cape. Future research on career decision making difficulties experienced by students could yield interesting insights into the causes of these factors. The results indicate that irrespective of the type of high school these students attended, indecision exists and is prevalent amongst many students.

Notwithstanding the insights derived from the current research, results need to be interpreted with caution since a convenience sample was used, therefore restricting the generalizability to the wider population of students.

The researcher hereby declares that the thesis, “Career indecision amongst prospective university students”, is her own work and that all sources that have been referred to and quoted have been indicated and acknowledged with complete references.
SULEILA VAN REENEN

This thesis is dedicated to my late sister Saarah… Even though you may not be with me in person, you will remain in my heart forever.

I will miss and love you until the end of time.

I can no other answer make, but, thanks, and thanks.

William Shakespeare

I would like to thank everybody who was important to the successful realization of this thesis, as well as expressing my apology that I could not mention each one personally. The author wishes to thank:

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INTRODUCTION

This introductory chapter explains the focus of the study. More specifically, the chapter presents the background of study, its research problem, research questions, research objectives, significance of the study and its scope.

Career indecision is one of the key aspects that professionals in career guidance counselling are interested in assessing. Career indecision, in the context of university students has been defined as the “inability to select a university major or occupation” (Borgen & Hiebert, 2006, p. 58). Thus, with the purpose of addressing career indecision, the proposed study would examine the nature thereof amongst prospective university students. The prevalence of specific aspects of career maturity (namely, self-information, decision-making, career information, integration of self-information and career information, and career planning) underlying career indecision will be investigated, as well as the correlations between these aspects. In addition, the correlations between the aspects of career maturity and certain biographical variables such as gender, home language, declared career choice, differentiation of interests, and self-reported level of career indecision will be examined. Thus, career indecision is encapsulated as either a trait or state an individual encompasses.
The term career indecision has been widely used with reference to problems relating to career development, particularly problems in making career-related decisions. The construct of career indecision is strongly coupled with society’s expectations of certain chosen career paths and a strong belief that many should pursue these careers. Therefore, current societal trends push people to revise their career decisions over their life spans. As a result the perceptions and expectations that society holds can gravely impact a student’s level of career readiness and the lack thereof. Furthermore, the role of the family as a fundamental influence on the career development of adolescents and young adults has been stressed by some classic theories of career development and choice. However, the exact nature and degree of the family’s influence on career decision making is not completely understood. Thus, cognizance should be taken of the fact that there are multiple facets impacting on the levels of career indecision experienced by some and not all, prospective university students. Furthermore, deciding on a career is an most important aspect of individual’s development and satisfaction and establishing what they are suited to do, and securing an opportunity to do it, is imperative to an individual’s life goals.

1.2 PROBLEM STATEMENT

Career indecision is encapsulated as either a trait or state an individual encompasses. Thus, career decisions have their roots not only in past experiences but also in a vision of the future. The major factor that senior high school students have to deal with is the imminence of reality as defined by the rapidly approaching separation from senior high school and passage into the independence of young adulthood and thus the transition into university (Herr, Cramer & Niles,
2004). Thus, with the purpose of addressing career indecision, the proposed study would examine the nature thereof amongst prospective university students. The prevalence of specific aspects of career maturity (namely, self-information, decision-making, career information, integration of self-information and career information, and career planning) underlying career indecision will be investigated, as well as the correlations between these aspects. In addition, the correlations between the aspects of career maturity and certain biographical variables such as gender, home language, declared career choice, differentiation of interests, and self-reported level of career indecision will be examined. In making career decisions, many factors must be weighed. Sometimes a career compromise is necessary, reconciling what is desirable with what is attainable (Gati, 1998). Furthermore, career decisions may be framed in three ways: in terms of alternatives, in terms of relative importance of each consideration, and in terms of preferences within each consideration.

In both sociological and psychology terms, many adolescence are apparently worried that their dream of accomplishing a future end result academically, could be jeopardized as their visions of the future could be restricted by the problem of money, the complexity of choices, and health (Herr et al., 2004). Thus, the transition from adolescence into the adult world of work and academia is inherently difficult in a society which persistently separates home and workplace and extends adolescence. Consequently, a large number of high school students continue to reflect uncertainty about their career plans and their desire for more career guidance. However, encounters with the world can teach these adolescence about themselves, inter alia, what they enjoy doing, what they are good at, and what really matters in work and in life.
Career indecision can be looked at through many lenses. Personality variables may include anxiety, vocational identity, and problem-solving abilities (Talib & Tan, 2009). Furthermore, the term career indecision has been widely used with reference to problems relating to career development, particularly problems in making career-related decisions. Career indecision amongst prospective university students is of such prevalence in today’s tumultuous society as the need for being assertive in choosing a specific career path is vital in exercising one’s locus of control, self-efficacy and the ability to be career ready. The purpose of the study is to examine why so many prospective university students experience high levels of career indecision. Thus, research will be conducted on Grade 10, 11 and 12 where students respectively, where n=200. Furthermore, research will occur at different types of secondary schools in Somerset West in the Western Cape. These secondary schools will consist of both Lower income schools, Model C schools as well as Private schools.

Many researchers are of the belief that career indecision is normal, and career decision making must incorporate considerations for those things that are uncertain (Peterson & Gonzalez, 2005). By weighing all of the positives and negatives for the given career alternatives, the prospective university student can make a more informed decision about which promises the most or which comes with the least amount of risk. Being undecided is acceptable, as it encourages more thought, research, and detailed considerations about the career move. However, it can become too much if it creates psychological stress or leads to irrational beliefs. It is thus imperative to note that human development and career development does not fit into one box as there are many factors that contribute to the development of individuals and their careers. Throughout this
research it was important to take into account the indigenous psychologies that inform people’s understanding of themselves, their social context, and the world.

1.3 RESEARCH OBJECTIVES

The research objectives include:

- What is the nature of career indecision amongst prospective university students.
- How can career indecision be minimized.
- What are the likely causes of career indecision.
- Can career counselling serve as a possible solution to eliminate or reduce career indecision.

1.4 HYPOTHESES

The following research hypotheses were formulated for application in a South African environment:

- **H01**- There will be a statistically significant correlation between participants’ scores on the CDDQ and their stated certainty of career choice; that is participants with a higher level of career development would rate themselves as more certain of their career choice.
- H02- If students follow a career plan; they would be less likely to face career indecision.

- H03- There will be statistically significant differences between the high and low interest differentiation groups on the CDDQ scores.

- H04- Gender will significantly impact career readiness and decisiveness.

- H05- Age will significantly impact career readiness and decisiveness.

1.5 DEFINITIONS AND TERMS

Adolescents’ has been referred to as “a person in the transitional phase of growth and development between childhood and adulthood, typically between ages 12 and 20.” (Vondracek & Reitzle, 1998, p. 205).

Career Competency refers to “individuals’ ‘know-why’ (values, attitudes, internal needs, identity and life style), ‘know-why’ (expertise, capabilities: tacit and explicit knowledge), ‘know-whom’ (networking relationships, how to find the right people) and ‘know-what’ (opportunities, threats and job requirements) competencies and qualities which enable them to pursue meaningful careers” (Guay, Ratelle, Senécal, Larose & Deschenes, 2006, p. 109).
**Career Development** is “the ongoing process by which individuals’ progress through a series of stages, each of which is characterized by a relatively unique set of issues, themes or tasks” (Schreuder & Theron, 2006, p. 105).

**Career Exploration** refers to “the collection and analysis of information regarding career related issues making individuals become more aware of themselves and the world of work, formulate career goals and decisions, and develop strategies necessary to accomplish significant goals” (Griffin & Hesketh, 2006, p. 25).

**Career Indecision** has been widely used with reference to problems relating to career development, particularly problems in making career-related decisions (Fouad, 1994). Career indecision, in the context of university students has been defined as the “inability to select a university major or occupation” (Borgen & Hiebert, 2006, p. 58).

**Career Management** refers to the “ongoing process whereby the individual obtains self-knowledge, knowledge of opportunities in the chosen career path, develops career goals, develops a strategy in order to obtain these career goals” (Stead & Watson, 2006, p. 105).

**Career Maturity** suggest strong relationships between identity and career commitment as variables of career maturity. Career maturity implies a “stabilized identity that provides
individuals with a framework for making career choices, a crystallized formation of self-perceptions, and developed skills whereby it is viewed as a continuous developmental process and presents specific identifiable characteristics and traits essential to career development” (Zunker, 2006, p. 415).

**Career Planning** refers to “the process by which individuals’ obtain knowledge about themselves (their values, personality, preferences, interests, abilities), information about employment opportunities, formulate goals, and develop a plan for reaching these goals” (Cabrea & Albrecht cited in Schreuder & Theron, 2006, p. 15).

**Career Self-efficacy** refers to “the degree of difficulty of career tasks which individuals believe they are to attempt and the degree to which their beliefs will persist, despite obstacles” (Amir & Gati, 2006, p. 205).

### 1.6 LIMITATIONS OF THE STUDY

The results of the present study should thus be considered within the context of certain limitations. Owing to the nature of non-probability sampling, the respondents were not representative of the broad South African student population, and the results could not therefore be generalized to the entire population and should be interpreted with caution. A further
implication of this lies in the fact that the results emanating from the research cannot be confidently extrapolated to the population of high school students, as circumstances in other school districts may differ from the sample that was selected. Hence, generalization of the results should therefore be restricted.

As the research was carried out in South African high schools, in countries with different characteristics (example, a different high school education system) or with different decision tasks, the relative salience of the various difficulty categories will probably be different. The assessment of the career decision-making difficulties was based on a particular theoretical approach and on the use of the CDDQ as a measuring instrument; further research could use other theoretical models and other instruments.

The sample population also consisted of predominantly English and Afrikaans speaking respondents, with a limited representation of the African languages. Not all of the respondents had been exposed to career counselling, which could have impacted on the results.
1.7 ORGANISATION OF THE STUDY

The thesis is presented as follows:

Chapter 1 discusses the background of the study, research problem, research questions, research objectives, significance of the study and its scope.

Chapter two provides a comprehensive discussion of career indecision and the prevalence thereof. Specific reference will thus be made to the factors impacting on career indecision and the necessity of career development in high school students. Definitions of career indecision, career development, career counselling as well as the factors impacting thereon will be provided, as well as the affective and cognitive factors impacting thereon. Furthermore the types of career indecision will be discussed as well as the relevant theories associated with career indecision. Further insight into the sources of career indecision will be provided as there are a variety of underlying reasons why individuals do not succeed or encounter problems in the selection of a university major or occupation.

Chapter three provides an overview of the research design utilized to execute the research. In particular, the selection of the sample, data collection methods, the psychometric properties of the relevant instruments as well as the statistical techniques will be delineated.
Chapter four addresses the results arising from the empirical analysis of the data which has been obtained.

Chapter five discusses the most salient results emanating from the results obtained in the study. Conclusions are drawn based on the obtained results and integrated with the existing literature. Moreover, practical implications of the research findings are highlighted and recommendations for future research are outlined.
CAREER INDECISION AMONGST PROSPECTIVE UNIVERSITY STUDENTS

CHAPTER TWO

2 LITERATURE REVIEW

2.1 INTRODUCTION

Although many studies have revolved around the broad theme of career indecision, most have failed to clearly define the construct (Gati & Saka, 2001). Furthermore, some studies seem to confuse the construct “career uncertainty” with “career indecision” and treat them as the same (Gordon & Meyer, 2002). Although career indecision and career uncertainty are closely related, they differ in terms of meaning and it can be stated that career uncertainty is a contributory variable in creating career indecision in students.

Previous studies have focused on analyzing the sources of career indecision and investigated specific contributory factors in career indecision (Morgan & Ness, 2003). These studies found that a critical factor in the reduction of career indecision was the process of gathering information relating to career alternatives. Furthermore, these studies suggested that a student’s choice of degree of study (indicating vocational choice) and current employment status (working
full time, part time or not working at all) played a vital role in either increasing or decreasing the levels of career indecision.

The purpose of the current study is to investigate the career indecision that many prospective university students are postulated to experience. What becomes imperative to note is that in today’s society adolescents want to be collaboratively guided through the process of interpreting the information that they have gathered about themselves and possible career choices through various career counselling techniques. Because career indecision is arguably one of the central issues of career psychology, it should be noted that in Grade 11 and 12; adolescents’ career preferences appear to change and become more realistic. The afore-mentioned group would thus serve as participants in the study (n=200) as the focus pertains to individual’s at diverse high schools, ranging from Private schools, Model C schools to Lower income schools within the Western Cape. Thus, in light of the understanding gained about career indecision it should become apparent that there is a great need for studies to investigate aspects of career indecision that are the most common among late adolescents. An accurate knowledge of the common career decision making difficulties of late adolescents and the specific effects that these difficulties can have on their career decision making processes, can provide great insight and direction for career guidance counselors.

Career indecision is one of the key aspects that professionals in career guidance counselling are interested in assessing. Career indecision, in the context of university students has been defined as the “inability to select a university major or occupation” (Borgen & Hiebert, 2006, p. 58).
Thus, with the purpose of addressing career indecision, the proposed study would examine the nature thereof amongst prospective university students. The prevalence of specific aspects of career maturity (namely, self-information, decision-making, career information, integration of self-information and career information, and career planning) underlying career indecision will be investigated, as well as the correlations between these aspects. In addition, the correlations between the aspects of career maturity and certain biographical variables such as gender, home language, declared career choice, differentiation of interests, differences in the type of school the individual attends and self-reported level of career indecision, will be examined.

Thus choosing a career is a vital step that affects the life course of an individual. According to Gati and Asher (2001), decisions about one’s career are among the most significant decisions one has to make. A career choice may fulfill an individual’s needs, values and interests and ultimately influence his or her quality of life.

The study of career indecision has made significant advances in the past 20 years (Gordon, 1998). Career indecision started as a dichotomous concept (Gordon, 1998) and initial efforts to study the construct of career indecision utilized the decided-undecided dichotomy (cited in Feldt, 2010). The construct of career indecision later evolved into a unidimensional continuum and more recently into a complex and multidimensional construct (Callahan & Greenhaus, 1992).
Research in highlighting this construct is thus of pivotal importance as guidance at high schools, parents living vicariously through their children and societal pressures make it cumbersome in establishing an individual’s level of career readiness. Research will thus be conducted to ascertain the different variables affecting prospective university students and their difficulty in making a career choice.

2.2 THE CONVERSION FROM HIGH SCHOOL TO UNIVERSITY AND THE IMPORTANCE OF CAREER COUNSELLORS

The transition from secondary school to tertiary level education or the job market requires adolescents to make important decisions regarding career choices. In a globalised western society, the options of tertiary education and occupational choices are virtually unlimited. This variety of options means that the process of narrowing down the numerous options and selecting “the best” one can be extremely daunting and challenging for late adolescents. This experience of having to narrow down the options can lead to career indecision, which is associated with anxiety, depression, lower life satisfaction, lower identity achievement, and maladjustment (Creed, Prideaux, & Patton, 2005). Career counsellors have a crucial role to play in this complex transitional period to help adolescents make informed decisions that reduce their level of career indecision.
In light of the school-to-work transition being described as a complex process, Borgen and Hiebert (2006) argue that the area of career counselling for adolescents is itself undergoing rapid changes. These changes are evidenced as both the expectations of adolescents, as well as educational and career opportunities are changing. Savickas (1999) argues that career counselling is crucial in this school-to-work transition because adolescents are confronted with having to readjust their perceptions of career and personal identity in order to minimize the difficulties that they may encounter during this process (Bunckingham & Clifton, 2005). Too often by focusing exclusively on academics, secondary schools neglect the need for adolescents to acquire greater competence in the knowledge and skills required for making informed career decisions (Savickas, 1999). It can be acknowledged that students transiting to tertiary study sometimes have unrealistic aspirations and that counsellors should try to help students guard against adopting an inflexible approach to their career decision making and should point out the shortfalls of unrealistically high hopes and expectations (Patton, 2005).

Career counsellors play a pivotal role in helping individual’s to deal with their proposed level of career indecision. This is because career counsellors are markedly trained to help others make good and knowledgeable choices about career goals and the way in which they could plan in order to achieve these goals. In addition, career counsellors have the ability to make individual’s understand why they are experiencing the career indecision and what potentially is causing them to be undecided in their career.
It is imperative to take cognizance of the fact that so much pressure is placed on students, especially concerning the transition from high school to university. Not only do these students have to cope with the normal pressures of life, but this in turn is coupled with making a decision that could quite possibly impact the rest of their lives. Often at times, to make the best decision, as an individual, one has to be resilient and reliant in order to combat the daily pressures of life and in order to make the best possible decision for one’s own life. This is often a challenge as the student is not always have self-knowledge and an accurate understanding of the potential vocation they might wish to pursue.

2.3 CAREER THEORIES AND CONCEPTS

Theory is important as it serve as a basic and fundamental knowledge on one’s field. Sharf (1996, p. 3) explained the role of theory in career development and counseling, “Career development theory can serve as guide for career counseling…By tying together research about career choice and adjustment with ideas about these issues, career development theorists have provided a conceptual framework within which to view the types of career problems that emerge during a person’s lifetime”.

More specifically, career development theories helps make sense of our experiences. For example, the rationalized set of assumptions or hypotheses would able to allow people to understand the past and foresee their future. In fact, career theories provided people as career guidance for optimal career decisions and satisfaction. Reviewed below are some of the most major career development theories.
2.3.1 TRAIT AND FACTOR THEORY

Trait and Factor Theory, the modern theories of vocational choice developed by Parsons (1909) and popularized by Williamson. This is one of the widely use structural theories during the first several decades of counseling profession. In fact, this theory has been the most durable of all theories of career guidance (Sharf, 1996).

According to Parson (cited in Rogers, 2010), individuals are interested in work which congruent with their traits and competencies. Therefore, Parsons (cited in Rogers, 2010) developed a framework to help individuals decide on a career. Some of the basic assumptions that underlie this theory as following:

1) A clear understanding of yourself, your aptitudes, abilities, interests, ambitions; resources and limitations.

2) Thorough knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work.

3) Identify and match between individual competencies and job factors using a straight forward problem-solving/decision making.

4) The closer the match between personal traits and job factors the greater the likelihood success in career (i.e., job performance and satisfaction).
In simple words, if individual’s traits match with the requirements of specific vacation, hence, it can solve the career-search problem (Sharf, 1996). Thus, the trait and factor theory is of the
opinion that it can match an individual to a particular job as well as identifying an individual’s traits.

2.3.2 HOLLAND’S CAREER TYPOLOGY THEORY

In the past few decades, the theory by Holland (cited in Corkin, 2008) has guided career interest assessment both nationally and internationally. Indeed, Holland’s work is the most well known of the person-environment fit theories. The theory was created by Holland which offers a simple and easy-to-understand typology framework on career interest and environment that could be used in career counseling and guidance (Porfeli, 2010). Holland thus developed a Vocational Preference Inventory questionnaire that contains 160 occupational titles. Respondents indicate which of those occupations they like or dislike, and their answers are used to form personality profiles (cited in Corkin, 2008).
Figure 2.2 Six Career Environments

The figure below is indicative of the fact that the closer two fields or orientations are in the hexagon, the more compatible they are (cited in Corkin, 2008). Adjacent categories are quite similar, whereas those diagonally opposed are highly dissimilar.

![Occupational Personality Types](image)

The bottom line, according to Holland, is that satisfaction is highest and turnover is lowest when personality and occupation are in agreement (Porfeli, 2010). For instance, a realistic person in a realistic job is in a more congruent situation than a realistic person in an investigative job. A realistic person in a social job is the most incongruent situation possible.
Generally, Holland’s theory has four basic assumptions as stated below: (Porfeli, 2010)

1) Individuals can be categorized into six typologies which consist of Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E) or Conventional (C).

2) There are six career environments which consist of Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E) or Conventional (C).

3) Individual search for environments that will let them adopt their skills and abilities, express their attitudes and values, and take on agreeable roles and problems.

4) Behavior is determined by an interaction between personality and environment.
Table 2.1  Holland’s Career Typology

<table>
<thead>
<tr>
<th>Personality</th>
<th>Classification Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realistic (R)</td>
<td>Includes individuals with mechanical or athletic ability; prefer to work with machines or tools, or prefer to work with nature.</td>
</tr>
<tr>
<td>Investigative (I)</td>
<td>Includes people who enjoy observing and analysis, as well as problem solving, or learning in general.</td>
</tr>
<tr>
<td>Artistic (A)</td>
<td>Includes creative individuals, who have intuitive abilities, or like to work in an unstructured environment in which they can use their creativity.</td>
</tr>
<tr>
<td>Social (C)</td>
<td>Includes people who like to work with people, mainly to provide information, or apply the skills of healing; these people also often use language well.</td>
</tr>
<tr>
<td>Enterprising (E)</td>
<td>Includes people who like to work with people, particularly in a management aspect, or in a position that allows them to persuade others to achieve organizational</td>
</tr>
</tbody>
</table>
goals or economic gain.

| Conventional (C)       | Includes people who like to work with data, have clerical or numerical ability, and are detail oriented, and work independently in accord with others’ instructions. |

Source: John Holland (cited in Corkin, 2008)

Therefore, Holland’s career typology is based on the assumption that individuals are able to express their personalities through their vocational interests, individuals seek out work environments in which they can fully utilize their skills and abilities and express their attitudes and values. Furthermore, individuals and work environments can be classified respectively by their personalities and personality requirements into one or some combination of the six categories (cited in Corkin, 2008)

2.3.3 SUPER’S THEORY

Super (cited in Tien, 2005), a career theorist of career development emphasized on the changes that people go through as they mature. According to Super, career patterns are determined by socioeconomic factors, mental and physical abilities, personal characteristics and the
opportunities to which individuals are exposed. One of Super’s greatest contributions to career development was the self-concept notion.

According to Super (cited in Tien, 2005), self-concept changes eventually and developed throughout one’s lives resulting of experience. In line with this, Zunker (2001, p.30) points that self-concept is an underlying factor in Super’s model, “…vocational self-concept develops through physical and mental growth, observations of work, identification with working adults, general environment, and general experiences….As experiences become broader in relation to awareness of world of work, the more sophisticated vocational self-concept is formed”. In short, people eventually seek for career satisfaction through work roles in which they can express, implement and develop their self-concepts.

Originally, Donald Super (cited in Tien, 2005) presented the life span vocational choice theory that has six life and career development stages. These six stages are (1) the crystallization stage, ages 14-18; (2) specification stage, ages 18-21; (3) implementation stage, ages 21-24; (4) the stabilization stage, ages 24-35; (5) consolidation, age 35; and (6) readiness for retirement, age 55. Later, he realized that we actually cycle and recycle throughout out life span as results of changes within ourselves as well as the changes at the workplace.
Furthermore Donald Super had five life and career development stages including:

Source: Zunker (2001)
Table 2.2 Super’s five life and development stages

<table>
<thead>
<tr>
<th>STAGE</th>
<th>AGE</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>birth-14</td>
<td>Development of self-concept, attitudes, needs and general world of work</td>
</tr>
<tr>
<td>Exploration</td>
<td>15-24</td>
<td>&quot;Trying out&quot; through classes, work hobbies. Tentative choice and skill development</td>
</tr>
<tr>
<td>Establishment</td>
<td>25-44</td>
<td>Entry-level skill building and stabilisation through work experience</td>
</tr>
<tr>
<td>Maintenance</td>
<td>45-64</td>
<td>Continual adjustment process to improve position</td>
</tr>
<tr>
<td>Decline</td>
<td>65+</td>
<td>Reduced output, prepare for retirement</td>
</tr>
</tbody>
</table>
Super states that in making a vocational choice individuals are expressing their self-concept, or understanding of self, which evolves over time. People seek career satisfaction through work roles in which they can express themselves and further implement and develop their self-concept.

**Table 2.3 Developmental tasks at these different stages**

<table>
<thead>
<tr>
<th>Life stage</th>
<th>Adolescence 14-25</th>
<th>Early adulthood 25-45</th>
<th>Middle adulthood 45-65</th>
<th>Late adulthood 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decline</td>
<td>Giving less time to hobbies</td>
<td>Reducing sports participation</td>
<td>Focusing on essentials</td>
<td>Reducing working hours</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Verifying current occupational choice</td>
<td>Making occupational position secure</td>
<td>Holding one's own against competition</td>
<td>Keeping what one enjoys</td>
</tr>
<tr>
<td>Establishment</td>
<td>Getting started in a chosen field</td>
<td>Settling down in a suitable position</td>
<td>Developing new skills</td>
<td>Doing things one has wanted to do</td>
</tr>
<tr>
<td>Exploration</td>
<td>Learning more about opportunities</td>
<td>Finding desired opportunity</td>
<td>Identifying new tasks to work on</td>
<td>Finding a good retirement place</td>
</tr>
</tbody>
</table>
Super (cited in Tien, 2005) further suggested that understanding these ages and related stages of career development helps one’s to select appropriate responses and activities. Thus, Super and Thompson (cited in Patton & Lokan, 2001) have identified six factors in vocational maturity as below:

1) Awareness of the need to plan ahead
2) Decision-making skills
3) Knowledge and use of information resources
4) General career information
5) General world of work information, and
6) Detailed information about occupations of preference
As a whole, Super’s (cited in Tien, 2005) work was discussed as one of the authoritative model of developmental career theories. Indeed, Super (cited in Tien, 2005) developed a very comprehensive developmental model that explains people will experience different life roles at different stages as they mature.
2.3.4 PERSON, CONTEXTUAL AND EXPERENTIAL FACTORS AFFECTING CAREER-RELATED CHOICE BEHAVIOUR

This model offers a couple of perspectives on how career choices are made and what influences these choices. Firstly, the basic interests development model is influenced by self-efficacy and outcome expectations which, in turn, affect one's goals in terms of choices, leading to specific actions with their respective reinforcers, and, ultimately, feedback in the form of learning experiences.

However, Lent, Brown, and Hackett (2000) attempted to demonstrate how other personal and contextual influences come into play. First, let's consider personal inputs such as gender and ethnicity. Lent, Brown, and Hackett purposefully elected to use these terms as opposed to sex and race. Gender and ethnicity connote that they are socially constructed characteristics. That is, they are the result not only of biological and genetic factors, but are the result of the experiences an individual has because of being a member of a particular race or either male or female. It includes opportunities afforded or denied because of these biological factors as well as the interpersonal experiences (support, indifference, hostility, suspicion, etc.) individuals are exposed to (Lent et al., 2000). For example, regardless of intentions, teachers and parents tend to treat boys and girls differently in terms of performance expectations, participation expectations, and the social reactions they are afforded.
Figure 2.4  Factors affecting career related choice behaviour

Source: Lent, Brown, and Hackett (2000)
This model also incorporates the diverse person, contextual, and learning influences on choice behavior (Lent et al., 2000).

Following the numbered paths, it becomes evident that:

- 1-2 That self-efficacy and outcome expectations together promote particular interests;
- 3 That interests serve to influence goals;
- 4 That goals stimulate actions designed to implement an individual’s goals;
- 5 That goal-related actions lead to particular performance experiences;
- 6 That the outcomes from these performance experiences, in turn, revise or strengthen self-efficacy and outcome expectations.

Additionally:

- 7 Shows the influential relationship between self-efficacy and outcome expectations;
- 8-11 Show that self-efficacy and outcome expectations may influence goals and actions directly, explaining why many individuals, in real world instances, compromise their interests in selecting vocational paths. These influences may include job availability operating in concert with beliefs about whether one can perform the required tasks and whether the incentives (rewards) are sufficient.
Last of all, background contextual affordances are those resources an individual perceives as being provided by the environment. For example, a scholarship to a particular university to study a particular subject or that a new company is moving into an area and is providing training for those wishing to be employed there.

Other influences are more “proximal,” such as emotional and/or financial support from family for particular education or training, job availability in a preferred field (Lent et al., 2000). Also included in this group are employment practices such as discrimination, glass ceilings, and cultural influences (e.g., parents choosing a child’s occupation or university).

2.3.5 THE PASSION PUZZLE

The Passion Puzzle is a unique activity designed to help individual to discover what career one’s will have passion for. The Passion Puzzle was created by Hewitt and d’Abadie (2005) in line with their bestselling book, The Power of Focus for University Students. According to both authors, they strongly believe that a career that individual passionate about is a career that (1) aligns with what the person’s value (2) is in line with the person’s interests (3) uses the person’s skills and (4) supports the person’s ambitions.
Hewitt and d'Abadie (2005) further points that the four ingredients, values, interests, skills, and ambitions will act like a fuel when one’s combined and applied to their career. Indeed, both authors suggest that the more fuel the person throws on the fire, the larger the flame will be (the individual become more passionate on their work). They further explain that removing any one of the element of values, interests, skills, and ambitions from one’s career will possibly reduce or eliminate any passion one’s have for that career.
2.4 THE NATURE OF CAREER INDECISION

Two elements, namely cognitive and affective, have been implicitly included in conceptualisations of career indecision (Feldt, 2010). Although many researchers have generally emphasized the cognitive elements over the affective elements in their research, most have included both these components in their conceptualisations.

2.4.1 COGNITIVE FACTORS

Contributing to the belief that career decidedness is multifaceted and interactive is research pertaining to cognitive factors. Thus cognitive factors are believed to have inherent relationships to career decidedness. Whereas some cognitive factors have been shown to facilitate career decidedness others have related to the impediment of career choice clarity (Ackerman & Gross, 2006; Amir & Gati, 2006; Campagna & Curtis, 2007; De Bruin & Bernard-Phera, 2002). Cognitive factors that have been found to relate to career decidedness include positive self talk (Tien, 2005), problem solving confidence (Saunders et al., 2000; Rogers, 2010), lower self appraised pressure and barriers (Luzzo, 1999; Osipow & Gati, 1998; Tien, 2005; McWhirter, 2001), internal appraisals of control (Savickas, 1999), and effective coping (Porfeli, 2010).

Conversely, cognitive factors that have demonstrated a relationship to career indecision are low problem solving confidence (Lent, Brown & Hackett, 2000), external appraisal of control (Betz
& Voyten, 1997), and greater self appraised pressure and barriers (Larson, Heppner, Ham & Dugan, 1988). Moreover, career indecision has also demonstrated a significant relationship to "career thinking" such as greater self defeating beliefs (Luzzo, 1999; Morgan & Ness, 2003; Patton, 2005; Rogers, 2010), irrational thinking (Borgen & Hiebert, 2006), poor career beliefs (Lent et al., 2000), and lower career decision-making self-efficacy beliefs (Betz, Klein & Taylor, 1996).

Where theorists have recommended that career decidedness is a by-product of career decision-making, research suggests that this may not be the case. As demonstrated by the literature, career decidedness is influenced by numerous general and cognitive factors. These influences interact within the career decision-making problem space to either facilitate or impede career choice. Whereas original theorists espoused the unidimensionality of career decidedness research is suggesting otherwise. In particular, current research has suggested that career decidedness is multidimensional in nature (Ackerman & Gross, 2006; Amir & Gati, 2006; Campagna & Curtis, 2007; De Bruin & Bernard-Phera, 2002).

2.4.2 AFFECTIVE ELEMENTS

The affective component of early career indecision includes factors such as anxiety, ambivalence, feelings of lack of control and frustration because of ones long term career goals and aspirations. According to Elyadi (2006), the immediacy and vividness of the regret that
might occur because of an unwanted outcome, may trigger emotions during the decision making process, such as anxiety, dread, fear and confusion.

2.5 CAREER UNCERTAINTY

To fully understand the construct “career uncertainty”, it is necessary to understand how a decision is made. Decision making is a multidimensional construct, comprising two principle perspectives, namely the consequentialist and the non-consequentialist perspective (Elyadi, 2006).

The consequentialist perspective describes decision making as an analytical process based on expected outcomes and probabilities of choice (Gaffner & Hazler, 2002). Before making a decision, an individual considers the impact and likelihood of the expected outcomes and tries to predict the probability of each separate outcome as well as how favourable or unfavourable each outcome is (Lent, 2001).

The consequentialist perspective postulates that decision making is a process of cognitive evaluations which form the basis of the way individuals process a choice, as well as the level of risk associated with that choice (Elyadi, 2006). Previous research has shown that individuals who lack the means or ability to make these consequentialist decisions may experience elevated levels
of uncertainty (Gati & Saka, 2001). This perspective does not in any way propose that emotions are not related to decision making, but suggests that emotions occur as a result of the decision making process (Elyadi, 2006).

The non-consequentialist perspective on decision making suggests that individuals make decisions on the basis of how they feel or in terms of their emotional responses. This perspective views the risk associated with a decision as an overwhelming feeling, as opposed to making decisions based on the probability of an expected outcome or utility (Elyadi, 2006). Hence, this perspective implies that decision making is influenced by both anticipated and experienced emotions.

Many authors have attempted to define the construct “career uncertainty”, but their definitions do not seem to cover the full scope of the construct (Smits, Bryan & McLean, 1996). The most appropriate and simplistic definition of career uncertainty can be found in the study by Tien (2005, p. 2), who defines it as “…any factors that make an individual feel uncertain of their career future.”

Despite the factors influencing career uncertainty, many situations may also contribute to this uncertainty. Some proponents believe that the greatest contributors to career uncertainty are the difficulties individuals experience when trying to make career related decisions. Previous research has indicated that a person’s ability to make difficult career related decisions is
negatively correlated with career uncertainty (Morgan & Ness, 2003). Career decision making difficulties reflect the lack of essential elements necessary to make the right decision (Tien, 2005). These elements can best be explained by utilising the taxonomy of difficulties in career decision making as developed by Gati, Krausz and Osipow (Gait & Saka, 2001). The elements in the taxonomy are consistent with the factors of career uncertainty.

The taxonomy makes a distinction between career decision making difficulties occurring before the decision making process and decision making difficulties occurring during the process (Morgan & Ness, 2003). These factors can be subdivided into a lack of readiness, sub factor accounts for the career decision making difficulties that might occur before individuals’ engage in the career decision making process. The second and third sub factors, namely lack of information and inconsistent information, refer to difficulties that individuals may experience during the decision making process (Morgan & Ness, 2003).

Career uncertainty thus plays an imperative role in an individual's career decision-making process (Card, 2008). In South Africa the rapid fluctuations in social, economic, and political situations influence the structure of the world of work as well as the career development of individuals (Beerlall, 1997). It is clear that uncertainty plays an important role in an individual's career decision making process.
2.6 CAREER INDECISION

The term career indecision has been widely used with reference to problems relating to career development, particularly problems in making career-related decisions (Fouad, 1994). Career indecision, in the context of university students has been defined as the “inability to select a university major or occupation” (Borgen & Hiebert, 2006, p. 58). Thus, research into career development has devoted much attention to the categorization of various problems related to career indecision, suggesting that career decisions have the following features: “there is an individual who has to make a decision, there are a number of alternatives to select from, and there are many attributes that are considered in the comparison and evaluation of the various alternatives” (Gordon & Meyer, 2002, p. 51). Thus, deciding on a career is one of the most important aspects of an individual’s development and personal happiness (Campagna & Curtis, 2007, p. 91). Establishing what an individual is suited to do, and securing an opportunity to do it, is imperative to that individual’s life goals.

Consequently, career indecision has been a major concern of career psychologists for many years. Career indecision can thus be seen as a state which comes and goes over time as a decision is made, is implemented, grows obsolete, and eventually leads to the need to make a new decision, thereby producing a temporary state of indecision (Morgan & Ness, 2003). Career indecision can thus be seen as a state that is normal in human development, as it is an issue that many individuals’ experience.
Research by Gati and Saka (2001), Tien (2001) and Morgan and Ness (2003) suggest that career decision making difficulties may lead individual’s becoming completely indecisive their career. Other research findings determined that students appear to place value on guidance and direction (Ackerman & Gross, 2006). Career indecision brings about the investigation of not only identity exploration, but identity formation as well.

One of the reasons why career indecision is arguably one of the central issues in career psychology is because of the high financial and psychological costs that occur as a result of career indecision (Gordon & Meyer, 2002). However, it is important to be aware of the fact that not all individuals who experience career indecision are necessarily anxious or uncomfortable. Furthermore, career indecision that is seen in a developmental light can serve to motivate individuals to explore numerous career options and engage in goal-directed behaviours. However, career decisiveness could potentially be affected by external pressures within a school system.

Fuqua and Hartman (cited in Feldt, 2010) mentioned the predominance of the developmental approach to career indecision, and this model has been well supported by researchers (Beerlall, 1997; Borgen & Hiebert, 2006). According to Fouad, (1994) the majority of vocational behaviour theorists and researchers appear to subscribe to some variation of the developmental viewpoint. Self-knowledge is one contributing factor to individuals’ awareness and understanding of themselves. Skills relating to individual self-management are essential for
adapting effective career management strategies such as engaging in realistic goal setting and adapting effective career strategies.

In the literature on career decision-making there is often confusion regarding what constitutes career indecision versus career indecisiveness. Osipow (1999) draws a distinction between the notion of indecisiveness as a trait and career indecision. He argues that indecisiveness is defined as a chronic and permanent inability to make decisions across different situations, whereas career indecision refers to a normal transitory phase in the process of making a particular decision. However, career indecision can fluctuate from person to person depending on a number of factors, like the need for career related information, career readiness, and self-efficacy (Creed, Prideaux, & Patton, 2005). Individual’s typically experience a certain level of developmental career indecision when they feel like they have limited experience and knowledge regarding the world of work (Gordon & Meyer, 2002).

In addition to the distinction between indecision (developmental indecision) and indecisiveness (chronic indecision), or an undecided and an indecisive individual, researchers also advocate differential counselling processes for various categories of undecided individuals. Indecisive individuals cannot be regarded as a homogeneous group, and no single counselling programme is likely to meet the diverse needs of the individuals who are undecided on a career (Cohen, Chartrand & Jowdy, 1995). Thus, counsellors should therefore use their clinical intuition and clinical methods to determine the nature of indecision of the individual and the type of intervention required (Osipow, 1999).
Although the term career indecision has received criticism due to the negative societal connotations of being undecided (Beerlall, 1997) and because it implies a negative description of the process of decision-making and choice (Savickas, 1999) the term retains its credibility. Cohen, Chartrand, and Jowdy (1995) refuted the criticism mentioned by stating that researchers of career indecision have been aware of and recognized the connotations and limitations of their concepts and terms for many years. Developmental indecision amongst students is viewed as a wholesome state, spurring the individual on to increased exploration and goal setting (cited in Feldt, 2010).

A critical area in career decision making is the process of gathering information about career alternatives. This process is known as career exploration, which is defined as self-evaluation and external activities that provide individuals with information to progress in the selection of, entry into and adjustment to an occupation (Morgan & Ness, 2003). The purpose of career exploration is to collect and analyse career related information to enable the individual to make optimal career related decisions and effectively reduce career indecision.

According to Borgen and Hiebert (2006) the need amongst university students for assistance in selecting a career and an academic major is well established. Osipow (1999) confirmed that research indicates a comprehensive and intense need for career planning and guidance amongst high school and university students, with the choice of a career and a major being priorities.
Thus, in an institution which serves large numbers of people, such as a university, it may be preferable to offer interventions such as career counselling to groups as opposed to only individuals. Within the South African context, Beerlall (1997) stated that effective career development programmes should be compulsory in the university curriculum, and that all first entry students should have career counselling before commencing their academic year.

Although career indecision, like most psychological disorders, could be conceptualized as a complex, multidimensional disorder, there has been a tendency to think of career indecision as a routine developmental task (Lent, 2001). This conceptual approach to career indecision must be based, at least to some extent, on the fact that thousands of students each year make the transition from high school to university, encountering identifiable demands from their new environment to make significant, long-term career decisions (Zimmerman & Kontosh, 2006).

A study by Stead, Watson, and Foxcroft (1993) concluded that career indecision in certain individuals may be prolonged by worrying excessively about events that are unlikely to have a major effect on career decisions. Consistent with this, Saunders, Peterson, Sampson and Reardon (2000) investigated the relationships between depression, dysfunctional career thinking and career indecision in undergraduate university students, and suggested that dysfunctional career thinking was a significant predictor of career indecision.
Researchers appear to concur that the majority of individuals would benefit from career counselling, including those who have decided on a career. The benefits of such counselling appear evident at both individual and group levels. However, it would appear that the counselling is most advantageous when it is specific to the needs of an individual or a particular subgroup (Gordon & Meyer, 2002). It becomes imperative to note that career indecision, consequently, is viewed as a developmental problem within the career maturation process that might possibly result from a lack of information, not only about self, but also about the world of work.

2.6.1 FACTORS ASSOCIATED WITH CAREER INDECISION

The way in which individuals make decisions about what careers to follow has been a focal point of research in both the vocational behaviour and career literature for nearly half a century (Betz & Voyten, 1997). Research pertaining to the stages of career decision making suggests that individuals’ career identities develop over time, commencing with broad explorations of talents and interests, followed by the tentative crystallisation of a narrower set of specific career options, and culminating in concrete choices about careers (Germeijs & De Boeck, 2002).

Career indecision may occur when an individual faces a difficult decision with no clear, easy choice. What makes a career choice difficult is often related to one’s perceptions, values, personal preferences and gut emotional reaction (Elyadi, 2006). According to Callahan and Greenhaus (1992), career indecision has certain main antecedents, namely lack of information
about oneself, lack of self-confidence as well as decision-making fear and anxiety. Therefore, the primary factors which seem to contribute to early career indecision include one's personality, family environment, demographic status and vocational interests and abilities.

2.6.1.1 PERSONALITY

Various personality traits have been researched and linked to career indecision, including self-esteem, self-identity and the big five personality traits. Thus, the personality trait most frequently investigated in the context of early career indecision is self-esteem (Feldman, 2003). Literature indicates that individuals with low self-esteem are less accurate perceivers of themselves and often regard their own capabilities in an unnecessarily harsh light (Osipow, 1999). Harriot, Ferrari and Dovidio (1996) support this by stating that there is evidence suggesting that negative self-statements and failure to use positive self-cognition are significantly related to indecision.

Individuals with low self-esteem tend to adopt career decisions that please others instead of making decisions that satisfy their personal needs (Greenhaus & Callahan, 1992). It thus becomes apparent that there is a significant relationship between the construct of self-esteem and career decidedness.
2.6.1.2 SELF-IDENTITY

According to Lee (2005), career indecision appears to have a close relationship with self-identity. Lee (2005) states that individual’s who are indecisive about their career choices, as a result of confusion about their self-identities, often lack confidence in their career preferences. Similarly, London (2002) contends that there are three key elements of career motivation which influence an individual’s career maturity, namely career identity, career insight and career resilience.

Career identity refers to how central one’s career is to one’s overall identity (Feldman & Turnley, 1995). Career insight refers to the degree to which individuals have realistic perceptions of themselves and their environments, and this is largely cognitive. Individuals lacking career insight will lack the goal specificity and realistic expectations needed to make appropriate career decisions. Career resilience refers to an individual’s fragility in the face of inordinate demands.
2.6.1.3 THE BIG FIVE PERSONALITY TRAITS

The big five personality traits have been the main focus for industrial and organizational psychologists researching the role of personality in vocational choices (Harriet et al., 1996). Two of these five traits appear to be most consistently related to career indecision, namely extroversion and neuroticism (Feldman, 2003). Extroverts are believed to display better social skills in any environment than introverts. Conversely, neuroticism has been linked to problem-solving insufficiencies, a dependent decision making style and career indecision (Boudreau, Boswell, Judge, & Bretz, 2001).
Figure 2.6  Factors associated with Career Indecision

According to Feldman (2003), students rating high on neuroticism are more prone to be either hyper vigilant in their career decision making behaviour or impulsive in making decisions purely to decrease stress levels associated with career choices.

2.6.2 THE RELATIONSHIP BETWEEN INDECISIVENESS AND CAREER INDECISION

There is an extensive record of the distinction between indecisiveness and career indecision (Slaney cited in Guay, Ratelle, Senécal, Larose & Deschenes, 2006). According to Slaney’s research, Tyler was the first to distinguish between indecision and indecisiveness. Van Matre and Cooper (1984, cited in Guay et al., 2006) clarify the distinction when they contend that indecision is a transitory state that is normal in human development (Osipow, 1999), while indecisiveness is an enduring trait that affects decision-making tasks, and is not an ordinary part of human growth and development (Osipow, 1999). While indecision is described in relation to a specific domain (example, career indecision), indecisiveness is regarded as a personal trait that generalizes to various domains (Myburgh, 2005; Osipow, 1999).

Individuals as human beings constantly have to make decisions. Indecisiveness has been used to describe individuals who have difficulty making various life decisions (Crites cited in De Bruin & Bernard-Phera, 2002). According to Crites (cited in De Bruin & Bernard-Phera, 2002), the indecisive person is incapable of making a career decision even under the most favourable conditions in which there are a number of available options, incentives for making a decision and the freedom to make a decision. Using Bowen’s terminology, Zingaro (cited in Griffin & Hesketh, 2006) describes the indecisive individual as undifferentiated. This undifferentiation makes it difficult for the individual to distinguish his or her wishes from the wishes of others. According to Zingaro (cited in Griffin & Hesketh, 2006), indecisiveness may have its roots in the
ineffective resolution of Erikson’s identity-identity confusion “crises.” For the indecisive individual, making a decision implies movement away from his or her parents, instead of movement towards goals and aspirations, resulting in anxiety for the indecisive individual.

Jones (cited in Germeijis & Boeck, 2003) suggests that one can categorise a person’s decisional situation into four subtypes namely: decided-comfortable, decided-uncomfortable, undecided-comfortable and undecided-uncomfortable. In the undecided-uncomfortable state an individual is in a state of indecisiveness (Elyadi, 2006).

The most frequent way to determine whether or not an individual’s career uncertainty is indecision or indecisiveness is to do it retrospectively (Osipow, 1999). Thus, if someone frequently has trouble making career or other decisions to the point where closure is not reached in time to implement the appropriate behaviour, one would view such a person as indecisive. Bear in mind that an individual can be undecided without being indecisive (Herr, Cramer & Niles, 2004).
2.6.3 TYPES OF CAREER INDECISION

Career indecision is regarded as a complex, multidimensional construct represented by different forms of indecision. Callahan & Greenhaus (1992) distinguish between four different subtypes of career indecision/career decidedness.

Figure 2.7 Different types of Career Indecision

Source: Callahan and Greenhaus (1992)
2.6.3.1 DEVELOPMENTAL INDECISION

Developmental indecision occurs when an individual experiences indecision mainly because of a general lack of information. Research has shown that developmentally undecided individuals tend to be younger, and in comparison with the decided groups, have limited knowledge about themselves. Individuals characterized by developmental indecision should thus experience a decrease in career indecision over time as they gather information on themselves (Guay, Ratelle, Senecal, Larose & Deschenes, 2006).

2.6.3.2 CHRONIC INDECISION

Greenhaus (1995) refer to the second career indecision subtype as chronic indecision. This form of indecision represents a more permanent inability to set career goals. According to Greenhaus et al. (1995), chronically undecided individuals usually remain stably undecided over time.

2.6.3.3 HYPER VIGILANT DECIDEDNESS

Hyper vigilant individuals have selected a career goal, but their decision is based on insufficient knowledge of themselves and/or the work environment. The hyper vigilant individual
prematurely rushes into a decision in response to extensive stress or other factors (Greenhaus et al., 1995).

2.6.3.4 VIGILANT DECIDEDNESS

According to Greenhaus et al. (1995), vigilant individuals have also selected a career goal, but, unlike hyper vigilant individuals, their selection is based on sufficient personal and environmental knowledge and is made with a lower level of stress and anxiety. Vigilant career decision making produces the most positive attitudes and the least stress for the individual.

2.6.4 CAREER EXPLORATION AND DECIDEDNESS

One of the most heuristic and useful practices in career development research has been the application of self-efficacy theory to the study of educational and vocational behaviour. Career self-efficacy, based on Bandura’s (cited in Elyadi, 2006) theory of self-efficacy expectations as a major mediator of both behaviour and behaviour change, was first investigated by Betz (cited in Gushue & Whiston, 2006). They reported that students’ beliefs about their educational and occupational capabilities were significantly related to the nature and range of career options they considered.
Their findings have been replicated in other samples (cited in Saunders et al., 2000), age groups (cited in Hirschi & Lage, 2007) and cultures (cited in Patton, 2005). Applications of self-efficacy theory to career decision-making skills (Betz & Hackett cited in Wu & Chang, 2009) suggest its utility as a major predictor of career indecision. More generally, meta-analyses and reviews (Betz & Voyten, 1997; Lent, 2001) strongly support the role of self-efficacy as a predictor of academic performance and persistence as well as career decision-making interactions and behaviours.

Although these concepts have stimulated considerable interest among researchers and practitioners, progress in this area has been facilitated by work embedding self-efficacy expectations within a more general social cognitive model originally formulated by Bandura (cited in Elyadi, 2006) and elaborated for vocational behaviour by Lent (2001).

The Lent (2001) model highlights three characteristics of the person; self-efficacy, outcome expectations and goals, that form the core of the social cognitive approach to vocational behaviour. Self-efficacy refers to beliefs in competencies with respect to the behaviours necessary in a particular career-relevant domain (Baker, 2002). Outcome expectations involve beliefs in the consequences of performing given behaviours, somewhat akin to Vroom’s (cited in Osipow, 1999) concept of subjective probability that certain acts will lead to certain outcomes. Efficacy and outcome expectations must be distinguished because “correct” performance does not always lead to the desired outcome.
Efficacy and outcome expectations are postulated to influence the development of both interests and of goals, although contextual influences may also play a role (Lent, 2001). Goals are often an implicit element of the career choice and decision process, with plans, decisions, aspirations, and behavioural choices all involving goal mechanisms. And, just as strong efficacy and outcome expectations would be postulated to lead to clearer goals and goal-oriented behaviour, low efficacy and outcome expectations may explain the relative lack thereof in some individuals.

In a study conducted by Betz and Voyten (1997) efficacy and outcome expectations were deemed as differentially effective predictors of certain variables, with career decision-making efficacy expectations related to career indecision, and career outcome expectations related to intentions to explore careers. Furthermore, the study showed the important relationship of career decision making self-efficacy expectations to career indecision. Thus, one obvious starting point for assisting an undecided student involves interventions based on four sources of efficacy information in Bandura’s (cited in Elyadi, 2006) self-efficacy theory. These sources of information, which can be structured by a counsellor, are; performance accomplishments, vicarious learning or modelling, anxiety management techniques and verbal persuasion and encouragement (Talib & Tan, 2009).

Both process and structure career theorists have considered career decidedness to be a by-product of the career choice process (Zunker, 2001). However, as research has evolved, a myriad of cognitive, contextual and personological factors have been suggested to influence individual career decidedness. Whereas much of the literature has considered decidedness to be a
unidimensional continuum, literature has suggested that career decidedness is multidimensional in nature. As such, career decidedness is influenced by multiple factors and is a complex problem space (Savickas, 1999). Career decidedness had originally been considered to be a decided / undecided dichotomy (Parsons cited in Lent et al., 2000). However, later theorists suggested that decidedness was best represented by a unidimensional continuum with degrees of decidedness (Tien, 2005). This belief was still being confirmed in research until the 1990's (Savickas, 1999) when researchers began to question this assumption (Saunders, Peterson, Sampson, & Reardon, 2000). In particular, theorists suggested that career decidedness was more multidimensional than originally thought.

Criticisms of the unidimensionality of career decidedness were largely based upon measurement instruments widely used in research. First generation career decision-making assessments (Krumboltz, 1993; Luzzo & McWhirter, 2001; Osipow & Gati, 1998), liberally utilized in career decision-making research, were suggested to be limited in scope (Osipow, 1999) consequently biasing research. In contrast, second generation measurement tools (Luzzo, 1999; Osipow & Gati, 1998; Tien, 2005; McWhirter, 2001) have been framed upon broader theoretical assumptions. As a result, research has suggested that career decidedness is more multidimensional than originally believed (Luzzo & McWhirter, 2001; Osipow & Gati, 1998; Tien, 2005).

Another factor implying the multidimensionality of career decidedness pertains to the broader body of literature. As such, research suggests that multiple factors influence career choice.
Career decision-making research has now begun to explore the nature of career decidedness and the factors that promote and impede career choice.

2.6.5 CAREER INDECISION: A SELF-DEFEATING BEHAVIOUR

In the past decade career education has gained considerable attention, yet an abundance of students continue to advocate the need for assistance in career decision-making (Lent, 2001). Many students view this decision making as an intangible nebulous process beyond their control. Previous research has contended the link between career indecision and that of self-defeating behaviour (Harun, 2006).

Examples of self-defeating behaviour (SDB) students typically use to resist making career decisions include avoiding the process, looking for someone else to provide the answers by resisting self-examination, postponing the decision, and acting confused. According to the self-defeating behaviour theory, students use SDB behaviours because of fear. The fear is often imaginary, as when students ask themselves, “What if…I choose the wrong career? I am unhappy in my career, I am not smart enough, My parents won’t accept my decision” amongst others. Thus, if students fail to become involved in the career decision-making process, their imaginary fears intensify. Ultimately, they are immobilized in a destructive cycle of indecision, waiting for someone to make career decisions for them (Saunders et al., 2000).
Students who disown their responsibilities for making career decisions perpetuate this cycle of indecision. They tend to rationalize that they are not responsible for career decisions by advocating the use of certain techniques. These techniques include not concentrating such as “Every time I try to think about my career, my mind goes blank”, labelling such as “I have never been good at mathematics”, blaming “I have not decided because my parents disapprove of every idea that I have had”, comparing “I have never been as smart as the others in my family”, distorting feedback “My teachers all said that I write well but...” as well as relying on external evidence “I thought I wanted to be an engineer, but the test says...” Habitual use of these techniques reinforces students until they sincerely believe they have no responsibility for their careers (Corkin, 2008).

The major alternative to career indecision is not necessarily choosing a career. Students must recognize that most career choices are not permanent. Instead, the positive alternative is for students to become involved in a process of career decision-making (Smits, Bryan & McLean, 1996). Once the process is learned, it can be applied at any time a career shift needs to be made.

Thus, learning the process of career decision-making involves several components. Students must face the fear of making a career choice by examining why they have avoided involvement in the process. They also need to own responsibility for their behaviour and confront the prices paid for avoiding career exploration by realizing the toll of the self-defeating behaviour. (Savickas, 1999) Furthermore, students also need to make a firm inner choice, which takes the form of a generalized, personal challenge. If students can overcome their indecision, they will
experience a reduction of anxiety and an increase in creativity, spontaneity and energy (Corkin, 2008). Applying the self-defeating behaviour theory to career indecision provides counsellors and students with additional tools for use in career counselling and exploring (London, 2004; Morgan & Ness, 2003; Porfeli, 2010).

2.6.6 PREDICTING CAREER INDECISION: SELF-DETERMINATION THEORY

Self-determination theory is another approach that can be applied to career indecision research. There is some evidence that the career decision-making process is affected by family, peers, and supporting theoretical frameworks (Guay, Senécal, Gauthier & Fernet, 2003). However, one’s own self-determination is derived from their sense of autonomy, competence, and relatedness. These give the individual confidence and a feeling of well-being. Research has shown that attachments to friends and family may actually encourage career exploration and experimentation. Younger students are more inclined to discuss career options with their peers than with their parents. Further, a strong sense of self-efficacy is linked to greater career decision-making activities, and that is more positive in a supporting environment of autonomous friends than among controlling friends or family matters.
Figure 2.8  Self-determination Theory

Source: Guay, Senécal, Gauthier and Fernet (2003)
These three afore-mentioned factors each contribute to one’s level of self-determination and it is important to take cognizance of the fact that as an individual, the depth and intensity of one’s self-determination depends on just that…one’s self.

Therefore, career indecision is normal, and career decision making must incorporate considerations for those things that are uncertain (Myburgh, 2005). By weighing all of the positives and negatives for the given career alternatives, the worker can make a more informed decision about which promises the most or which comes with the least amount of risk. Being undecided is acceptable, as it encourages more thought, research, and detailed considerations about the career move. However, it can become too much if it creates psychological stress or leads to irrational beliefs.

2.6.7 CAREER INDECISION AND TRANSITION

Students often go through periods of transition (Betz et al., 1996). This can occur for several reasons. Transitions can be career changes, a new job, family changes, circumstances of life, or something as simple as a change in degree or major. In counselling people through a decision-making period, advisors walk the client through the exploration process. The model exploration process includes four components: self-knowledge, educational knowledge, occupational knowledge, and decision-making knowledge.
Some people make changes after they make an initial career decision. This may result from a
discovery of how difficult the job is or by influence of peers and family members. Adult or mid-
career students often enter transition due to circumstances of family, kids, aging relatives, or a
host of other needs. The difference is that these clients have a better understanding of
themselves, their strengths, the world of work, and the options available to them. For a
counsellor, it is important to understand the transitional issues that the particular individual is

2.6.9 RELATION OF DEPRESSION AND DYSFUNCTIONAL CAREER
THINKING TO CAREER INDECISION

In a study conducted by Campagna and Curtis (2007) depression and dysfunctional career
thinking were investigated as components of the state of career indecision. The participants were
215 undergraduate students enrolled in an introductory psychology course at a large south-
eastern university. The Career Decision Scale (CDI) was used to measure career indecision,
whereas the Beck Depression Inventory (BDI) and Career Thoughts Inventory (CTI) were used
to measure depression and dysfunctional career thinking respectively.

The relative contribution of depression, dysfunctional career thoughts, and selected control
variables were ascertained through hierarchical regression. Results support the existence of
dysfunctional career thoughts as a significant component of career indecision. Depression
associated significantly with career indecision yet captured no significant independent variation in the regression model.

It becomes evident that when an individual encounters difficulties with regards to making a career choice that has the potential to impact his or her life significantly, it is not difficult to understand why depression might be associated with the inability to make a career choice. The individual may encounter feelings of helplessness and become despondent when career indecision is experienced, especially because to the high school student, such a decision is deemed as a great one to make.

2.7 CAREER INDECISION AND ANXIETY

Often at times high school learners might find themselves in the peculiar position of being worried about their prospective careers. This in turn has a tremendous impact on their emotional level and state, which has the potential to not only lead, but induce anxiety. Anxiety is a common emotion that is experienced by most people with some regularity, and has been shown to influence many types of judgements and decisions, including those associated with careers (Krumboltz, 1993; Luzzo & McWhirter, 2001; Osipow & Gati, 1998). Indeed, anxiety may influence people’s decisions because it influences the focus of their attention and creates cognitive load that limits their ability to think effort fully about problems (Eysenck, 2000). The career decision process, in itself, can be an anxiety provoking exercise (Feldman, 2003).
The origins of zeteophobia, the anxiety associated with career decision making and exploration, may be in the negative connotations of the term “undecided,” the social pressure to make some decision or any decision, the social pressure to choose prestigious occupations as goals whether or not the choice is well founded, and the absence of legitimate mechanisms in our society to teach career decision-making skills (Krumboltz, 1993).

Anxiety comes in two forms: state and trait. State anxiety refers to temporary feelings of anxiety that are often, but not always, aroused by specific threats and stressors (Savickas, 1999). By contrast, trait anxiety reflects people’s usual level of anxiety and their tendency to become anxious (Gordon & Meyer, 2002). State and trait anxiety tend to be strongly positively correlated and although both trait and state anxiety could conceivably influence career decidedness, it is at times difficult to separate the independent contributions that state anxiety and trait anxiety make in career indecision (Lent, 2001). Thus, the relation of career indecision and anxiety is important to career counsellors.

A study carried out by Campagna and Curtis (2007), examining whether a relationship exists between career indecision and anxiety found that trait anxiety is significantly related to career decidedness, which is also consistent with findings of previous studies (Saunders et al., 2000). Furthermore the study also found that state anxiety is significantly related to career decidedness, which is also consistent with previous studies (Corkin, 2008).
The fact that career indecision is a complex, multidimensional problem is based on much more than merely clinical impressions. In a series of studies (Fuqua & Hartman cited in Feldt, 2010), it has been consistently confirmed that career indecision is related to serious psychological problems including situational and characteristic anxiety, self-perceptual problems, and externalized attribution. Salomone (cited in Whiston, Sexton & Lasoff, 1998) systematically described the type of individual who fails to benefit from the traditional approach as an individual who has personal qualities that will not allow him or her to make a decision. Salomone (cited in Whiston et al., 1998) used the label of indecisive to distinguish this student from the developmentally undecided person.

Consequently, anxiety is associated with increased career indecision and reduced career certainty. This becomes palpable as so much expectation is placed on high school learners and when faced with the decision, which is ultimately placed upon these learners, so much emotion is coupled with the level of career indecision that they are left with a feeling of apprehension and vacillation pertaining to what career path their lives will follow (Lent et al., 2000; Smits et al., 1996). It becomes cumbersome to note that from a practical standpoint, state anxiety is a greater impediment to career decidedness than trait anxiety, because one can much more easily influence someone’s present feelings (state anxiety) than their personality (trait anxiety) (Campagna & Curtis, 2007).

Regarding career indecision, research has also suggested that a link between anxiety and maladaptive career beliefs are prevalent (Ackerman & Gross, 2006; Amir & Gati, 2006;
Campagna & Curtis, 2007; De Bruin & Bernard-Phera, 2002). Negative career thinking has been recognized as important to the career choice process (McWhirter, 2001).

Therefore the assumption can be made that career counselling has typically focused on assisting individuals to obtain results, and professionals in guidance and counselling practices should work toward developing their clients’ skills to reduce anxiety, such as coping and stress management skills. Additionally, relaxation techniques could be used in order to reduce state anxiety and thus facilitate the career decision making process (Luzzo, 1999).

2.8 CAREER READINESS AND INDECISIVENESS

Indecisiveness is a different process than career indecision and this difference should be duly noted. Whereas indecision is a state that is normal in human development, indecisiveness is not an ordinary part of human growth and development, but is, instead, a personal trait which generalizes across situations demanding decisions. If someone repeatedly has trouble making career or other decisions to the point where closure is not reached in time to implement the appropriate behaviour, it could be deduced that that person is indecisive (Feldman, 2003). An individual can be undecided about being indecisive. However, an indecisive person would of necessity display undecided behaviour at many decision points during life (cited in Feldt, 2010). On the other hand, an individual who is career ready has the self affirmation of being able to define their interests, having an appropriate view of what path they wish their potential careers to
follow. A career ready individual is able to define what they wish their careers to be and encapsulate the skills and competencies they would require in order to be successful entry level university students.

A variety of career development interventions are practiced in public schools, private schools, universities that have planned integration of career development concepts (Gordon & Meyer, 2002). These curricula lead the majority of students through the concepts that will prepare them for the future. Some students, however, fail to respond to the various interventions and are not ready to work through the process. Through previous literature and research findings, three major and recurring factors which appear to be important in preventing students from being ready are a lack of motivation, dysfunctional myths and a lack of knowledge about the process (Amir & Gati, 2006). Applications of self-efficacy theory to career decision-making skills (Osipow, 1999) suggest its utility as a major predictor of career indecision. More generally, meta-analyses and reviews (Betz & Luzzo, 1996; Hackett, 1994) strongly support the role of self-efficacy as a predictor of academic performance and persistence as well as career decision-making intentions and behaviours.

Although these concepts have stimulated considerable interest among researchers and practitioners, progress in this area has been facilitated by work embedding self-efficacy expectations within a more general social cognitive model originally formulated by Bandura (1977) and elaborated for vocational behaviour by Lent (2001).
Some myths appear to incapacitate a student’s decision making. Consequently, some of the myths that seem to be particularly problematic, which previous literature has mentioned on a recurring basis, include deciding and entering into a career will solve personal problems, an ideal career will fulfill all aspirations and making a career choice is a one-time event and there is no turning back (Osipow, 1999). What many adolescents fail to take cognizance of is the fact that choosing a particular career path need not be filled with so much anxiety, uncertainty and despair because if they are better equipped with a greater understanding and knowledge of the field they have an interest in, the confusion need not spiral out of control (Nota & Soresi, 2003). Thus, when facing a significant decision, the ensuing negative emotions may be so strong that an individual is unable to clearly engage in the cognitive evaluation process and is unable to make a decision. It is imperative to take cognizance of the fact that career indecision is regarded as a multidimensional, complex construct, represented by different forms of indecision (Lee, 2005).

In a cluster analysis, Borgen and Hiebert (2006) found a group of undecided students who appeared to lack motivation to enter the career decision making process Osipow’s (1999). Research also indicated a moderately high correlation between a lack of motivation and a lack of readiness. Furthermore, Creed, Prideaux and Patton (2005) found four clusters contributing to an individual’s level of career indecision. One of these clusters was to be found to be the least informed about themselves, had a lack of career planning activities combined with maladaptive coping behaviours and attitudes. The overall results suggest that inadequate knowledge and a lack of vocational maturity may minimize their participation in the career planning process (Hammond & Lockman, 2010).
Several studies suggest that some students could be termed vocationally immature and not ready to begin the career planning process (Campagna & Curtis, 2007). This may be due to a lack of motivation or dysfunctional myths, whereas other students simply do not understand the process and need some psycho-educational interventions. Career indecision is thus not an unusual phenomenon; rather another factor that frequently causes career indecision in that important information is missing.

Many studies have postulated that a relationship exists between family stream and high school students’ career development. Family adaptability and family cohesion which have been considered as indicators of family function, and career attitude maturity are conceptualized as a representative factor explaining adolescents’ career development (cited in Rogers, 2010). Furthermore, certain demographic variables such as parents’ educational backgrounds, occupation and income have all proven to have a significant impact on the career maturity of level of career indecision amongst students (Morgan & Ness, 2003).

2.9 CAREER MATURITY

Career maturity is central to a developmental approach to understanding career behaviour and involves an assessment of an individual’s level of career progress in relation to his or her career-relevant tasks (Nauta & Kahn, 2007). It refers, broadly, to the individual’s readiness to make informed, age-appropriate career decisions and cope with career development tasks (Hirschi &
Definitions include the individual’s ability to make appropriate career choices, including awareness of what is required to make a career decision and the degree to which one’s choices are both realistic and consistent over time (Hirschi & Lage, 2008). Grites’s (cited in Porfeli, 2010) model of career maturity proposed that it consists of affective and cognitive dimensions. The cognitive dimension is composed of decision-making skills whilst the affective dimension includes attitudes toward the career decision-making process. Thus, the construct of career maturity consists of readiness, attitude and competency to cope effectively with the career development tasks corresponding to one’s life stage (Super cited in Patton & Lokan, 2001). The assumption can be made that a career mature person is more capable of making an appropriate and realistic career choice and decision. Career mature individuals have the ability to identify specific occupational preferences and to implement activities in order to achieve their goals. Super (cited in Patton & Lokan, 2001) said that career development takes place across one’s entire life span and can be divided into five stages or “maxi cycles.” These stages are comprised of growth, exploration, establishment, maintenance and disengagement. These life stages have a significant impact on an individual’s level of career maturity, and ultimately level of career indecision (Vondracek & Reitzle, 1998).

As defined earlier, career maturity is the extent to which individuals are able to master certain career developmental tasks that are applicable to their life stage (Langley, du Toit & Herbst, 1996). It is extremely important to identify an individual’s state of career maturity in order to provide appropriate career guidance. Langley et al. (1996) highlighted certain aspects of career maturity. These include to obtain information about oneself and converting such 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; integrating self knowledge and knowledge of the occupational world as well as implementing the obtained knowledge in career planning (Vondracek & Reitzle, 1998).

Langley (cited in Wu & Chang, 2009) integrated the approached of Super (cited in Patton & Lokan, 2001), Crites (cited in Rogers, 2010) and Westbrook (cited in Porfeli, 2010) and designed a scale called the Career Maturity Scale. The Career Maturity Scale measures one of five things; including knowledge of self, decision making, career information, integration of knowledge about self and about the career as well as career planning. The integrated approach of Langley (cited in Wu & Chang, 2009) implies that an individual needs to successfully complete certain developmental tasks. Consequently, it is imperative to take cognizance of the fact that career maturity is an important aspect of career indecision and is thus critical in order to determine which developmental tasks an individual should focus on.

Gushue and Whiston (2006) suggested that individuals who possess relatively high levels of career maturity are likely to obtain successful and satisfying careers, as they display more awareness of the career decision-making process, contemplate alternative careers, link their present behaviour to future goals, have high levels of self-reliance in making career decisions, are committed to making career goals, and are willing to recognize the demands of reality. Combined, these characteristics suggest that people with high career maturity will perceive fewer barriers to their career options.
The afore-mentioned table illustrates the three different aspects related to career maturity. These include career maturity and age, career maturity and gender as well as career decision status.
2.9.1 CAREER MATURITY AND AGE

Regarding age, although theoretical assumptions suggest uniform development in career maturity, practical considerations such as the planning activities needed for immediate decisions at transition points imposed by the education system suggest uneven development. Early work with the Career Development Inventory (Hirschi & Lage, 2007) found significant differences in career maturity scores between Grades 9 and 10, and between Grades 9 and 11 and 9 and 12 (Wu & Chang, 2009). Early work with the Career Maturity Inventory (CMI) (Gushue & Whiston, 2006) showed an incremental increase in career maturity from Grade 9 to Grade 12 (Smits et al., 1996). Other research postulates that students in higher grades have higher career maturity scores than those in lower grades (Hirschi & Lage, 2008).

Some researchers postulate that career maturity may be more usefully differentiated by grade rather than age because of the influence of the educational milieu as the primary agent of career behaviour and the grade-related career decisions students are required to make (Watson & van Aarde cited in Wu & Chang, 2009).
2.9.2 CAREER MATURITY AND GENDER

Generally, research findings demonstrate that females, across age and national context, have higher scores on career maturity measures than males (Patton, 2005). However, Fouad (1994) found that females scored higher on only some career maturity subscales. Studies have determined that career maturity increases with age (Luzzo, 1999). Ethnicity differences in career maturity have also been reported, such that youth from major ethnic groups display higher career maturity than do peers from minor ethnic groups (Nauta & Kahn, 2007). However, research by Luzzo (1999) did not report similar findings pertaining to ethnicity differences. Thus, while there appears to be some inconsistency in results, it can generally be stated that gender, age and ethnicity differences exist in varying degrees in relation to career maturity.

2.9.3 CAREER DECISION STATUS

A more specific aspect of career maturity is career decision status, defined by the Career Decision Scale as certainty or indecision (Osipow, 1999). Considerable attention has been focused on the individual’s acquisition of mature career decision-making attitudes and competencies; however, there has also been focus on individuals who have not yet mastered one of the major career-decision making tasks, that is, making a career decision (Gushue & Whiston, 2006). In essence, career maturity is a measure of readiness to make career decisions on the bases of attitudes toward and knowledge of career decision making (Luzzo, 1999). The
assessment of career indecision provides information about the specific issues that might inhibit individuals in making career decisions (Gupta & Tracey, 2008). The extent and nature of career indecision is a relevant aspect of career development maturity and is a useful theoretical construct for providing a criterion index for the development and evaluation of career interventions.

2.10 CAREER IDENTITY

Sense of identity involves knowing one’s self and where one is going in life (Myburgh, 2005). For a high school student, having a sense of identity is crucial in the development of his or her life processes. This includes having a core set of beliefs and values which guide actions and decisions as well as having a sense of purpose (Patton & Lokan, 2001; Savickas, 1999). Identity development is an important process that each person transitions through during his or her life. According to Marcia’ model, adolescents go through different chronological stages, each of which provides an opportunity for individuals to move forward, remain the same, or regress through ego crises (Marcia, 2002).

Identity is an internal, self-constructed organization of hopes, abilities, beliefs and individual history (Osipow, 1999). In addition, Marcia (2002) postulates that commitment, which refers to the presence of strong certainty and beliefs and exploration which refers to active questioning of different options and searching for alternatives are two very important components to identity. In
order to be able to be less prone to career indecision, it is imperative for any individual to have a strong sense of self (Gianakos, 1999).

2.11 ELEMENTS OF CAREER DEVELOPMENT

Patton and Lokan (2001) defines the field of career development as "the total constellation of psychological, sociological, educational, physical, economic and chance factors that combine to influence the nature and significance of work in the total life span of any given individual" (p. 2).

No discussion of the elements of career development would be complete without the mention of the work of Parsons (cited in Rogers, 2010), who is credited with being the founder of vocational guidance. Parsons (cited in Rogers, 2010, p. 91) stated that “in the wise choice of a vocation, there are three broad factors that need to be considered. These include a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations and their causes; knowledge of the requirement and conditions of success, advantages and disadvantages, compensation, opportunities and prospects in different lines of work as well as true reasoning on the relations of these groups of facts.” The impact that career development has upon young individuals is long-term and inestimable (McWhirter, 2001).
Thus, these three ‘elements’, namely self knowledge, knowledge about the world of work and the decision making process relating to this knowledge, have been at the core of many career guidance theories since that time (Gushue & Whiston, 2006). Various theories have focused on
one or a combination of these three elements, sometimes referred to as theories of content and process. More recent developmental and contextual theories have attempted to provide a framework for career guidance which copes with the great variability in people’s lives, within a constantly changing environment (Borgen & Hiebert, 2006). Vocational choice is influenced by four facts, namely; the reality factor, the influence of the educational process, the emotional factor and individual values. It can thus be assumed that it is a developmental path that leads to career choice (Nauta & Kahn, 2007).

The role of the family as a fundamental influence on the career development of adolescents and young adults has been stressed by some classic theories of career development and choice (Roe & Super cited in Porfeli, 2010). However, the exact nature and degree of the family’s influence on career decision making is not fully understood, but contributes significantly to individuals experiencing levels of career indecision (Kelly & Pulver, 2003). Thus, Career Development is central to successful School-to-Work transitioning, to lifelong learning, and to maintaining a competitive economy (Osipow, 1999).

Career indecision occurs because of a plateau of various circumstances, none of which should be treated in isolation. Individual’s experiencing career indecisiveness experience it because of a plethora of contributing factors and it is in gaining an understanding into these factors that would invariably assist individuals in making a correct career decision, based on the knowledge of the field rather than previous antecedents (Hirschi & Lage, 2008) There are many challenges for young people making career decisions and the fluidity of decision making in young people and
how quickly their ambitions and ideals can change need to be dealt with accordingly (Whiston et al., 1998). Numerous studies have found that young people, regardless of their gender, experienced similar difficulties when making career related decisions (Patton, 2005). By adolescence, most people have a sense of their competence at a vast array of performance areas, along with convictions about the likely outcomes of a career. Through a process of intervening learning experiences that shape further one’s abilities and impacts self-efficacy and outcome beliefs, one’s vocational interests, choices and performances are shaped and reshaped (Whiston et al., 1998).

2.12 PERCEIVED BARRIES IN CAREER DEVELOPMENT

While the importance of perceived barriers in career decision-making has been recognized in earlier career development research (Crites cited in Rogers, 2010; Gottfredson cited in Hirschi & Lage, 2008), it is only recently that researchers and theorists have begun to systematically examine the role they play in the career decision-making process. Previous studies have consistently revealed that high school and university students perceive a substantial number of barriers to career goal attainment, including ethnic and sex discrimination, financial problems, family attitudes, social support, perceived lack of ability, lack of fit, and lack of interest (Ackerman & Gross, 2006; Amir & Gati, 2006; Campagna & Curtis, 2007; De Bruin & Bernard-Phera, 2002).
Much of the refocus on the role of barriers in career decision-making has been on perceived barriers. The use of the word “perceived” implies that the career-related barriers an individual believes currently exist or that may be encountered in the future are not necessarily grounded in reality or based on factual information (Savickas, 1999). Yet, even barriers with no reality basis can, and often do, have a direct impact on the career decision-making process of the individual (Luzzo, 1999; McWhirter, 2001). For example, Luzzo (1999) found that even if the perceived barrier has no basis in reality, it could have an impact on the career decision-making of a student. Perceived barriers are almost uniformly considered instrumental in eroding students’ self-confidence and complicating the career planning process (Borgen & Hiebert, 2006).

Although there is a lack of consensus concerning the specific types and range of potential barriers people may perceive, most early discussions of barriers have distinguished between two types, namely internal and external (London, 2004; Morgan & Ness, 2003; Porfeli, 2010). Crites (cited in Rogers, 2010) described barriers as either internal conflicts such as self-concept or the motivation to achieve or external conflicts such as discrimination or wages which may interfere with one’s career development.

According to Swanson and Tokar (1996) three categories of barriers exist. Social/interpersonal barriers were defined as barriers regarding one’s family origin and future marriage and children. Attitudinal barriers were described as those primarily “internal” in nature, such as self-concept, interests and attitudes to work. Interactional barriers were defined as those difficulties relating to
demographic characteristics such as age, sex and race, preparation for work such as work and experience as well as the work environment (Jones, 2009).

2.13 FACTORS THAT INFLUENCE CAREER IDENTITIES AND CAREER CHOICES

Ackerman and Gross (2006) are of the opinion that when people are confronted with alternatives in making choices, factors such as external social influences, and the cultural environment in which they are located, as well as their struggle to come to terms with the options available to them, account for their preference towards a specific occupational stream.

Similarly, the factors that might have a significant contribution to an individual's career choice could range from social consciousness, to the availability of information, role models in their life, the importance of monetary gain and social status, lack of guidance with regard to subject choices at school, financial constraints and to fulfill self actualization (Tien, 2005). Numerous studies have found that there appears to be a relationship between an individual’s personality type and their level of career indecision (Tracey & Darcey, 2002). Thus there is a relation of psychological type to career indecision amongst prospective university students and the Myers-Briggs Type Indicator is an instrument which has been widely used as a decision making aid in career counselling for undecided students (Cohen, Chartrand & Jowdy, 1995).
The fact that student career decision making is not well understood and the contention that contemporary theoretical models oversimplify the process concern many researchers (Osipow, 1999). For example, early research concluded that career indecision represented only a routine developmental delay in vocational decision making (Elyadi, 2006).

Social consciousness refers to having a mature viewpoint such as ‘I want to achieve something with my life and contribute to society (Ackerman & Gross, 2006). If individuals can be socially conscious, it would inevitably help them to make a career decision. Students need to have role models in their lives as often at times the student would want to emulate their role models, thus propelling them into becoming what their role models are (Whiston et al., 1998). Many individuals associate a particular degree or occupation with the financial wealth which would follow if they follow certain degrees, however what many individuals come to realize is that they cannot base the career path they wish to follow purely on financial gain, as there are other contributing factors which could influence such a decision (Lent et al., 2000).

Career decision-making is complex and dynamic. Cognitive factors that influence career choice are of interest to researchers. In particular, negative career thoughts and career self-efficacy have been found to influence career decidedness. Similarly, cognitive expectancy has been linked to career decidedness through the locus of control construct (Tien, 2005). Where locus of control has demonstrated salutogenic stress reducing properties in health literature it has also been widely used in career research. Other cognitive expectancies could contribute to the literature
pertaining to career choice. In particular, sense of coherence has begun to make inroads to career psychology (Luzzo, 1999; Morgan & Ness, 2003; Patton, 2005; Rogers, 2010).

2.13.1 THE ROLE OF THE FAMILY IN CAREER DECISION MAKING

In existing theories of vocational development career indecision is generally attributed to character deficits in the young adult. However, it has been duly noted that arriving at a career decision is a difficult and anxious task for many students and that family can have a tremendous influence on career indecision.

The influence of the family on career decision making has long been recognized as an important factor by most vocational theorists (Swanson & Tokar, 1996). Wu and Chang (2009) suggested that parents affect their children’s career choices by acting as role models, influences on children’s self-concept, occupational motivators, job information resources, and providers of the developmental environment.

Yet, despite the longstanding acknowledgement of the family’s influence on career development, clear statements on the relationship of family interaction to effective career decision making have eluded vocational theorists and researchers. This neglect is not surprising, given the scarcity (Patton & Lokan, 2001) and fragmented nature (Gushue & Whiston, 2006) of theories linking
family variables to vocational behaviour. Kelly & Wei-Chien (2002) cited several limitations of existing theoretical and empirical efforts to clarify this relationship. These limitations included a focus on vocational outcomes rather than on relevant developmental processes, a failure to view the family as a functioning whole, and a failure to recognize both the changing nature of work and of the family itself.

Proponents of a family systems perspective emphasize the importance of considering family members’ interactional patterns and emotional interdependencies in understanding individual maladjustment. Unfortunately, the ongoing, reciprocal influence of parent-child interactions is not accounted for by traditional vocational theories (Feldt, 2010). Instead, when family factors have been considered, they have been viewed primarily as antecedent influences on career choice.

The psychoanalytically based vocational theory of Bordin, Nachmann, and Segal (cited in Hirschi & Lage, 2008) and Roe’s (cited in Porfeli, 2010) personality theory of career choice both emphasize the primary influence of early childhood experiences on vocational development. Similarly, Holland’s (cited in Hammond & Lockman, 2010) original theory of vocational choice implied that family variables exert only on antecedent influence on career choice in that they shape the individual’s unique interests and work styles.
It has become a virtual belief that the young adult’s choice or indecision can be alternatively conceptualized, not as an individual achievement or personality trait but rather as the outcome of a larger set of transactions between the person and the family (Ackerman & Gross, 2006; Amir & Gati, 2006; Campagna & Curtis, 2007; De Bruin & Bernard-Phera, 2002). These transactions collectively represent either a successful or unsuccessful transformation in family functioning. Certain family interactions enhance this transformation, whereas others inhibit it, thereby creating a climate that promotes and maintains indecision (Campagna & Curtis, 2007).

2.13.2 CAREER DECISION MAKING AND FAMILY DEVELOPMENT

In theories of family development, it is contended that the period of late adolescence represents a crucial stage in the family life cycle (Luzzo, 1999; Osipow & Gati, 1998; Tien, 2005; McWhirter, 2001). During this phase, the adolescent is attempting to establish an adult identity, separate psychologically from parents, and form clear educational and vocational plans. The interrelatedness of all three tasks; identity formation, psychological separation, and career decision making cannot be ignored.

The achievement of a personal identity requires an awareness and introjection of the differences between one’s own values, needs, and aspirations and those of others, most notably one’s parents. The significance of these distinctions between self and others emphasizes the interactional nature of identity formation and the salience of parent-child interactions in
particular (Luzzo, 1999). Moreover, because commitment to an occupational role is an important index of adult identity formation (Osipow & Gati, 1998), the family processes leading to effective career decision making, identity formation, and psychological separation probably follow complementary tracks.

This phase in the family’s life cycle is crucial in that it presents unique developmental tasks requiring novel behaviour from both the adolescent and his or her parents. With respect to career matters, the adolescent must address important questions about work and education, assume responsibility for gathering and using predecision information, and ultimately arrive at a reasoned, independent judgment regarding career choice. The reality of making that choice, however, is seldom a private affair. Rather, it is an activity that emerges into existing parent-child interactions (Amir et al., 2007).

In order to promote independent decision making, parents need to alter the nature of their contributions. This change may involve maintaining sufficient distance from their offspring’s developmental work instead of offering direct assistance. In other words, as the adolescent becomes more actively involved in career decision making, parents must correspondingly assume a more peripheral role (De Bruin & Bernard-Phera, 2002). They should offer encouragement but, at the same time, indicate clearly that independent action is both accepted and expected. Through the coordinated responses of both the adolescent and the parents, a family context emerges that is supportive of career decision making (Luzzo & McWhirter, 2001; Osipow & Gati, 1998).
Furthermore, these adjustments signal a significant intrafamily transformation that concurrently promotes the appropriate separation and individuation of the young adult. Osipow (1999) appropriately stated that the developmental task of career decision making creates a “novel primary need” (p. 35) in the adolescent and requires a corresponding match in family structure if appropriate change is to occur. Thus, if young adults are to perceive themselves as capable of making an independent career choice, they must first be capable of apprehending and expressing separateness from their families.

2.13.3 CAREER INDECISION AS A FAILURE IN FAMILY TRANSFORMATION

Failure to establish an adequate identity during adolescence may lead to role confusion (Savickas, 1999), in which the individual experiences uncertainty and anxiety and exhibits an over reliance on others for guidance and support. Hirsch and Lage (2007) suggested that problems in identity formation are often expressed as difficulties in choosing a career. They characterized vocationally indecisive persons as “not quite competent to do anything, as though they are not quite complete, or have something important missing” (p. 98). What these individuals may be missing is sufficient psychological separation from their parents.

Osipow and Gati (1998) suggested that if parents are to support the young adult’s appropriate individuation, then they must encourage autonomy and lessen those emotional dependencies that bind the young adult to the family. With regard to career decision making, such family processes
may be manifested in several ways. For instance, both parents can support vocational exploration instead of encouraging a particular career choice (Luzzo, 1999; Osipow & Gati, 1998; Tien, 2005; McWhirter, 2001).

They can accept the tentativeness of their offspring’s decision making rather than challenging it or demanding greater decisiveness. Appropriate family processes would also demonstrate that both parents can avoid emotional entanglements with their son or daughter over career related matters. In the language of structural family theory (McWhirter, 2001), a clear parent-child boundary must exist during this period. Furthermore, vocationally indecisive students typically encounter an over involvement of parents over career and educational matters, implicating the existence of a weak parent-child boundary (Ackerman & Gross, 2006).

2.13.4 SYSTEMATIC FUNCTIONS OF CAREER INDECISION

A prominent contention in family systems approaches is that individual disturbance or symptomatology serves important regulatory functions in the family through its influence in family processes (Luzzo & McWhirter, 2001; Osipow & Gati, 1998). Thus, the probable systematic functions of career indecision is that career indecision provides the family with a vehicle for postponing an important transformation, that of young adult separation.
Career indecision not only renders the student “helpless” to decide on and implement career plans, it also draws parents into greater involvement with their offspring. Presumably, in families in which the existing parent-child boundary is weak, the developmental task of career decision making, which requires more differentiated functioning from both parents and young adult, will be perceived as threatening the family’s equilibrium. This threat can be reduced by the appearance of a symptom (indecision) that reactivates greater parent-child involvement (Krumboltz, 1993; Luzzo & McWhirter, 2001; Osipow & Gati, 1998).

The student’s career indecision may also serve the function of “detouring” conflict elsewhere in the family. For example, if parents disagree about how to relate to the young adult’s increasing independence and separation from the family, tensions may escalate. If parents are reluctant to discuss and resolve their own differences, their offspring’s indecision may provide them with a means of reducing the escalating tension within their relationship by shifting the focus to the young adult (Ackerman & Gross, 2006; Amir & Gati, 2006; Campagna & Curtis, 2007; De Bruin & Bernard-Phera, 2002).

Furthermore, the emergence of career indecision may reflect an effort to cope with unresolved multigenerational issues. Frequently, the student who is indecisive about a career is afraid of disappointing one or both parents by making a particular career choice. Career counsellors often hear students making comments such as, “My dad does not think much of journalism” or “My mom thinks that all business executives are materialistic and selfish.” These perceptions will probably impede appropriate exploration and consideration of career choices (Rogers, 2010).
Therefore, cognizance should be taken of the fact that the indecisive student may regard himself or herself as the one member of the family who can satisfy the unfulfilled needs of the parents, especially those parents who want to live vicariously through their children (Osipow & Gati, 1998). This overburdened role indicates the presence of a parent-child role reversal wherein the young adult is attempting to take care of parents through his or her own life decision making (Mosconi & Emmett, 2003). Given this stress, career indecision may represent an interactional “solution” to the conflicting parental demands that are perceived by the student as “Be independent” and “Do not do anything that would disappoint us” (Betz et al., 1996).

2.14 THE ROLE OF EDUCATIONAL PROVIDERS

Numerous literature has suggested that schools and tertiary institutions should work closely together to inform and educate prospective students about career prospects and how to make career choices (Guay, Senécal, Gauthier & Fernet, 2003). This could include elements such as awareness of the attributes future employers seek; a detailed analysis of the typical types of jobs and the availability of these jobs associated with specific degrees of study, and the industry standard remuneration associated with these jobs (Lent et al., 2000). This could empower current and prospective students to make informed decisions about their degrees of study and ultimately their careers, which could help to minimize career indecision (Miller & Liciardi, 2003).

The social learning approach to vocational counseling includes: genetic endowments,
environmental conditions, learning experiences, and task approach skills (Myburgh, 2005). Genetic endowments refers to an acknowledgement that some people are born with given strengths, talents, or a predisposition toward a given career strength. Environmental conditions refer to the social environment, the people, and the things a worker sees that influence career choice. Learning experiences can come in the form of applied experiences and the results those experiences produce or in the form of associative learning or observations (Staley, 1996).

A good counsellor serves his client as a coach. Tom Peters (cited in Miller & Liciardi, 2003) identified five coaching roles for career coaches: educating, sponsoring, coaching, counseling, and confronting (Lancaster et al., 1999). As an educator, the counsellor conveys knowledge, skills, performance expectations, and locates learning laboratories that may interest the individual. As a sponsor, the counsellor emphasizes long-term development and acts as an advocate for the individual. As a coach, the counsellor acts as a mentor, encouraging, motivating, listening, instilling confidence, and improving the performance of the individual (Spokane, Meir, & Catalano, 2000). As a counsellor, he is a problem solver, provides support, and shows commitment. As a confronter, the counsellor gives direct feedback, challenges the individual’s thinking, and discusses sensitive issues (Miller & Liciardi, 2003).

Career guidance enhances a person’s career development and enables an individual to make more effective career-related decisions (Esters, 2007). This includes a variety of activities that help people develop self-awareness and vocational knowledge, learn career decision-making skills and adjust to occupational choices after they have been implemented. At secondary level,
career guidance counsellors should provide more information to enlighten students about the pros and cons of each profession (Myburgh, 2005).

2.15 CONCLUDING STATEMENTS

It is clear that the transition from secondary school to tertiary education or the job market has the potential to elicit a great deal of career indecision amongst late adolescents, because they are forced to narrow down the myriad of career options in order to choose a field of study that best suits their personality, aptitude, skills and aspirations for the future. Career guidance counsellors could assist adolescents in this period of transition from a variety of different approaches. It is important to take cognizance of the fact that in order to make the best decision when it comes to one’s future vocation, there are a plethora of factors that contribute to the effectiveness of that decision. Hence, not only does the individual have to have a great sense of self when it comes to knowing what that individual wants out of life, but it is imperative to choose a vocation which fulfills what that individual has envisioned for themselves.

It becomes of integral importance to take cognizance of the fact that many adolescents experience some or other form of career indecision and that career indecision cannot be treated in isolation as there are a plethora of factors that influence decision making and the difficulties associated with it. It is not always that individuals’ experiences career indecision because of a lack of information, but other factors coupled with it, makes taking that decision so much more
difficult. It is therefore invaluable for career counsellors as well as the individual experiencing the career indecision to analyze these factors and deal with them accordingly.
RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In this chapter, the report discusses the research framework as well as the research methodology used in the investigation of career indecision amongst prospective university students in high schools in the Western Cape. More specifically, this chapter describes and explains the sample selection, the statistical analysis, the questionnaires, the reliability and validity of the measuring instrument, the data collection method and the statistical methods adopted to analyze the research data collected for this study.

3.2 SELECTION OF THE SAMPLE

Huysamen (1994, p. 38) defines a population as encompassing “the total collection of all members, cases or elements about which the researcher wishes to draw conclusions”. The population for this research includes high schools students from six high schools in the Strand and Somerset West area in the Western Cape. These high schools ranged from lower income schools, to model c schools as well as private schools. This would give one a more holistic insight into whether or not there are indeed different factors impacting on ones level of career decision making relative to the type of high school one attends.
According to Sekaran (2003, p.266) sampling is defined as “the process of selecting a sufficient number of elements from the population, so that the study of the sample and understanding of its properties or characteristics would make it possible for one to generalize such properties or characteristics to the population elements”. In view of that, the sample thus consists of grade ten, grade eleven and grade twelve students at the schools conveniently available to participate.

3.2.1 CONVENIENCE SAMPLING

A non-probability sampling design was used, based on the method of convenience. Non-probability sampling does not involve elements of randomization and not each potential respondent has an equal chance of participating in the research. Some of the advantages of utilizing a non-probability sample rest in the fact that it is cost-effective and less time consuming. Furthermore, the sample size is manageable and consequently this method effectively made use of the population in respect of the general population of students. However, its associated shortcomings relate to its restricted generalisibility, particularly in lieu of the higher chances of sampling errors (Sekaran, 2003). Consequently, in order to overcome the restrictions with regards to generalisibility, Sekaran (2003) posits the view that it is advisable to use larger samples.
3.3 PROCEDURE

A cross-sectional research method, based on the survey approach was utilized. Two hundred (200) grade ten, eleven and twelve, male and female learners, studying at different types of schools in the Western Cape, ranging from Model C schools, Private schools as well as Lower Income schools were made use of.

A cover letter, affixed to the questionnaire, explained the nature of the study, as well as assuring respondents of the confidentiality of any information provided. Respondents were also provided with detailed instructions as to how the questionnaires were to be completed and returned. The rationale behind providing clear instructions and assuring confidentiality of information is based on the fact that this significantly reduces the likelihood of obtaining biased responses (Sekaran, 2003). Self-administered questionnaires were returned immediately, upon completion thereof by the students at a particular school. This method proved to be convenient and reliable as the questionnaires were accessible immediately.

A total of two hundred questionnaires were administered, with two hundred fully completed questionnaires being returned, thereby constituting a one hundred percent return rate. This is much higher than the thirty percent anticipated in most research, as all the questionnaires were returned (Sekaran, 2003). Additionally, Sekaran (2003) postulates that sample sizes of between thirty and five hundred subjects are appropriate for most research.
3.4 BIOGRAPHICAL QUESTIONNAIRE

A biographical questionnaire soliciting information relating to the respondents’ gender, home language, chronological age, declared career choice, stated level of career indecision as well as the type of high school which the student attends was compiled. The data with respect to these biographical questions was subsequently graphically represented and discussed in order to provide an indication of the most salient findings in respect to these variables.

3.5 CAREER DECISION MAKING DIFFICULTIES QUESTIONNAIRE (CDDQ)

3.5.1 NATURE AND COMPOSITION OF THE CDDQ

Throughout life, individuals are required to make numerous decisions. One important subset of decisions that individuals have to make at different stages in their lives’ involves work-related decisions pertaining to career and employment. Difficulties in career decision making are arguably one of the most commonly identified problems in career psychology (Osipow, 1999). Thus, the Career decision making difficulties questionnaire (CDDQ) was made use of during this study. The thirty six item CDDQ is a comprehensive measure of numerous components of career indecision. The CDDQ has the potential to serve as a diagnostic instrument in individual counselling because it highlights areas that students need to work on by identifying substantial
problem areas. This knowledge of specific difficulties in the career decision making process could improve the efficiency of career counselling practices.

The thirty six item CDDQ is a comprehensive measure of numerous components of career indecision. The first step in helping individuals is to locate the focuses of the difficulties they face in making career decisions. Gati, Krausz, and Osipow (1996) proposed a taxonomy for describing the difficulties (see Figure 3.1), based on the stage in the decision-making process during which the difficulties typically arise, the similarity between the sources of the difficulties and the effects that the difficulties may have on the process and the relevant type of intervention
Figure 3.1 gives a schematic representation locating career decision making difficulties based on the taxonomy of Gati, Krausz & Osipow (1996)

- PRIOR TO ENGAGING IN THE PROCESS
  - LACK OF READINESS DUE TO:
    - LACK OF MOTIVATION
    - INDECISIVENESS
    - DYSFUNCTIONAL BELIEFS

- DURING THE PROCESS
  - LACK OF INFORMATION ABOUT:
    - CDM PROCESS
    - SELF
    - OCCUPATION
    - WAYS OF OBTAINING INFORMATION

- INCONSISTENT INFORMATION DUE TO:
  - UNRELIABLE INFO.
  - INTERNAL CONFLICTS
  - EXTERNAL CONFLICTS
3.5.2 RELIABILITY OF THE CDDQ

According to Sekaran (2003), reliability refers to whether an instrument is consistent, stable and free from error, despite fluctuations within the test taker, administrator or certain conditions under which the test is administered.

The initial reliability study on the CDDQ was conducted by Gati, Krausz and Osipow (1996) using an Israeli sample as well as an American sample of 563 individuals ages 17-23. The analysis showed the reliability of each of the ten scores to be satisfactory, with the exception that the Dysfunctional Beliefs scale showed lower reliability of 0.40. The results showed no systematic or meaningful gender difference in the scale scores. The Israeli sample showed a median scale Cronbach alpha reliability of 0.78 and a median test-retest total scale reliability of 0.65. The American sample showed the median scale Cronbach alpha reliability of 0.77. The study also concluded that the Cronbach alpha reliability of the total CDDQ score was 0.95 in both samples.

A subsequent study by Osipow and Gati (1998) examined the construct and concurrent validity of the CDDQ. This study used an American sample of 450 university students. These students completed the CDDQ along with the Career Decision Scale (Osipow, 1999) and the Career Decision-Making Self-Efficacy Scale (Gati et al., 1996). The results show no gender differences in the scores of any of the three questionnaires. This study found the reliability of total scores to
be high with the CDDQ at 0.94, the CDSE-SF at 0.95 and the CDS at 0.85. The study replicated the low reliability findings by Gait et al. (1996) for the Dysfunctional Beliefs scale with Cronbach alpha of 0.32.

The study provided positive evidence for convergent validity, as the results showed a positive correlation between the total scores of the CDDQ and the CDS of $r=0.77$, and a negative correlation between the CDDQ and the CDMSE of $r=-0.52$. All five CDSE-SF scales had the strongest correlation with the scales in the Lack of information category and the weakest correlations with the scales in the Lack of Readiness category, most notably the Dysfunctional Beliefs scale (-0.02 to -0.11). The CDS also showed the weakest correlation with the scales in the Lack of Readiness category and most strongly with both the Lack of Information (0.71) and Inconsistent Information (0.72) categories. Within the Inconsistent Information category the CDS showed the lowest correlation with the external conflicts scale (0.44).

Concurrent validity was studied using the participant’s response to a question as to their degree of decidedness. The results found the scores for the undecided group were higher on the CDS and CDDQ and lower on the CDSE-SF than those of the group who reported themselves as decided. Thus, the undecided group, (as evidenced by their higher CDDQ and CDS and lower CDSE-SF scores) were experiencing more career decision-making difficulty and indecision than the decided group. Correlations between the participants’ self-reported scores of the severity of their career decision making difficulties and the three questionnaires showed positive
correlations with both the CDDQ at $r=0.69$ and the CDS at $r=0.61$, and negative correlation for the CDMSE at $r=-0.38$. (Gati et al., 1996)

3.5.3 VALIDITY OF THE CDDQ

Validity, according to Sekaran (2003) attests to whether or not an instrument measures what it is suppose to measure and is justified by the evidence. Essentially, it entails the extent to which an instrument actually measures the aspects that it was intended to measure.

Lancaster, Rudolph, Perkins and Patten (1999) studied the reliability and construct validity of the CDDQ. Their study used an American sample of 268 university students. Lancaster et al. investigated discriminant validity using the Beck Anxiety Inventory (BAI) and the Marlowe-Crowne Social Desirability Scale (MC-SDS) expecting that both would have a weak relationship with the CDDQ, in that the CDDQ is intending to measure something other than social desirability or anxiety. Convergent validity was assessed using the CDS, with the expectation that there would be a strong positive relationship as both purport to measure difficulties in career decision making.

The results for the reliability of the CDDQ were consistent with that of the initial study by Gati et al. (1996). Once again the Dysfunctional Beliefs Scale showed low reliability with a Cronbach
alpha of 0.34. and the overall reliability of the CDDQ was high at 0.96. Similar to two previous studies, no systematic or meaningful gender differences were found. Evidence for convergent validity was confirmed with a positive correlation at r=0.82 between the CDDQ and the CDS. Lancaster et al. report that discriminant validity of the CDDQ was confirmed on both of the two constructs investigated, anxiety and social desirability. The MC-SDS measuring social desirability did however show a small but significant negative correlation with most of the CDDQ scales (-0.17 to -0.28). Lancaster et al. suggest that this indicates that many of the students who scored low on the CDDQ may have been attempting to present themselves in a more positive light (Lancaster et al., 1999).

The study found that, anxiety, as measured by the BAI, had a weak statistically significant relationship with all three major categories and most of the scales of the CDDQ, with r=0.18 for total CDDQ and BAI, and r=0.25 for the Lack of Readiness category. Lancaster et al. suggest that this commonality between the two measures indicates that “the CDDQ is somewhat influenced by anxiety” (p. 403). The study concluded that, as the anxiety scores were scattered and similar to the anxiety levels found on the CDS, that the CDDQ is not a global measure of anxiety. Overall, the study’s results provide some further support for the reliability and validity of the CDDQ on a university student sample. (Lancaster et al., 1999)

Gati, Osipow, Krausz and Saka (2000) examined the validity of the CDDQ using the responses of 95 individuals involved in personal career counselling at a public career counselling centre in Israeli, and the judgements of the counsellors as to their counselee’s career decision making.
difficulties. The study replicated previous studies (Gati et al., 1996; Lancaster et al., 1999; Osipow & Gati, 1998). Once again no systematic or meaningful gender differences were found. Also repeated was the low reliability for the Dysfunctional Beliefs Scale (0.46), the category with the lowest reliability was the Lack of Readiness category (0.68). The study found that the other scales showed moderate to high reliabilities, with a range from 0.64 to 0.80. The overall reliability of the CDDQ was once again high with a Cronbach alpha of 0.90. Intercorrelations among the 10 scales, and the major categories ranged from 0.02 to 0.88. Results showed a positive correlation, with a median of 0.23, between the counsellor’s judgements of the counselee’s career decision difficulties and the counselee’s CDDQ score. Gati et al. suggest that although significant, this correlation is lower than expected.

In 2001, Gati, Saka, and Krausz used the CDDQ in a study which examined the pattern of career decision-making difficulties encountered by 471 young adults, aged 19-27 who used the computer-assisted career guidance systems (CACGS) provided by the Israeli Veteran Administration’s counselling centres. The study had the participants fill out the CDDQ prior to receiving career assistance through the CACGS, and then to fill it out again after using the CACGS. Gati et al. hypothesized that those individuals who were in different stages of their career decision making process according to the PIC model (pre-screening, in-depth exploration, and choice) (Gati & Asher, 2001) would have different CDDQ scores. More specifically, they predicted that those in the pre-screening stage would score higher than those in the in-depth exploration stage, and those in the choice stage would have the lowest score of all. As well, Gati et al. (2001) hypothesized that completing the CACGS would reduce their CDDQ scores.
The results supported the distinction between the three stages of the PIC model. As well, the results of the aggregate group did show that the CACGS utilization did serve to reduce the total CDDQ score and all the scales scores, except for Lack of Motivation (d=0.01), Dysfunctional Beliefs (d=0.29) and External Conflicts (-0.09). The reduction on the CDDQ scores was most evident on the Lack of Information about occupations scale (d=0.91). The size of the difference was noted to be based on the type of CACGS interaction and the type of career decision difficulty the individual was encountering. Gati et al. hypothesized that the CACGS had no effect on the Lack of Motivation scale due to the possibility that most clients did not actually have this difficulty as evidenced by their making and keeping an appointment at a counselling centre. They also speculated that no effect on the External Conflicts scale may indicate that these types of difficulties are not addressed by a computer based intervention and would be better served by individual counselling. This study provided further evidence that the CDDQ can be useful in evaluating the effectiveness of career interventions. As well, that it can be useful as a career intervention assessment tool and be able to differentiate between the types of career difficulties encountered (Gati et al., 2001).

Gati and Saka (2001) used the CDDQ in a revised form to assess Israeli high school students’ career-related decision-making difficulties. The CDDQ was adapted to relate to three decision situations encountered by the majority of Israeli adolescents. Gati and Saka (2001) found satisfactory scale reliability, similar to the results of the previous studies (Gati et al., 1996; Lancaster et al., 1999 & Osipow & Gati, 1998). Once again the Dysfunctional Beliefs scale showed low reliability. The Gati and Saka study (2001) provided evidence for concurrent validity of the CDDQ. The authors concluded that the CDDQ in its revised form was consistent
in being able to differentiate between decided and undecided students in relation to their overall difficulties.

Kelly and Wei-Chien (2002) used the CDDQ in their exploration of the domain of career decision problems. The study conducted factor analysis of the CDS and the CDDQ and compared the derived factors to their previous factor analysis studies. Six reliable factors emerged: Lack of Information, Need for Information, Trait Indecision, Disagreement with Others, Identity Diffusion and Choice Anxiety. They found that the Lack of Information factor consisted of all of the items from the scales in the CDDQ’s Lack of Information category as well as the items in the Unreliable Information scale. The study also found that the CDDQ measured two unique decision problems: Lack of Information and Disagreement with Others. Kelly and Wei-Chien (2002) concluded that the CDDQ does make a unique contribution to the measurement of career indecision, in that it is based on decision theory which enables the counsellor to formulate specific interventions, and that it provides for a systematic and quick assessment of a wide variety of decision problems. However, they also found that it provided limited coverage of decision problems and that no single instrument adequately sampled the entire domain.

The few studies which have investigated the reliability and validity of the questionnaire have provided promising evidence. The studies have, however, raised some questions to their own limitations. One limitation raised often is the need for further study to be conducted on a more diverse cultural sample (Gati, Krausz & Osipow, 1996).
3.5.4 RATIONALE FOR INCLUSION

In terms of the rationale for using the selected apparatus, it was noted that the most commonly used apparatus for ascertaining individuals level of career indecision is the career development questionnaire (CDQ). The CDDQ is beneficial in that it is able to give a more accurate understanding of where difficulties occur in the career decision making process. It can serve as a diagnostic instrument in individual counselling because it highlights areas that students need to work on by identifying substantial problem areas.

However, the benefit of the CDDQ is that it is able to give a more accurate understanding of where difficulties occur in the career decision making process (Amir & Gati, 2006). Furthermore, the CDDQ has been found to be suitable for different countries and cultures and has been translated in to 18 languages, thus making it suitable for use in the South African context.

3.6 STATISTICAL METHODS

For the purposes of testing the research hypotheses, a number of statistical techniques were employed. These included both descriptive and inferential techniques.
3.6.1 DESCRIPTIVE STATISTICS

Descriptive statistics describe the phenomena of interest (Sekaran, 2003), and is used to analyze data for classifying and summarizing numerical data. It includes the analysis of data using frequencies, dispersions of dependent and independent variables and measures of central tendency and variability and to obtain a feel for the data (Sekaran, 2003). The mean and standard deviation will primarily be used to describe the data obtained from the CDDQ. Furthermore, the results of the biographical questionnaire will be based on the frequencies and percentages obtained based on the sample characteristics. Thus, descriptive statistics were deemed necessary to summarize the results and convey the findings effectively.

3.6.2. INFERENTIAL STATISTICS

Inferential statistics allow the researcher to present the data obtained in research in statistical format in order to facilitate the identification of important patterns and to make data analysis more meaningful. According to Sekaran (2003), inferential statistics is employed when generalizations from a sample to a population are made. The statistical methods used in this research include the Pearson product-moment correlation as well as multiple regression analysis. Thus, inferential statistics provided insight into the degree of certainty with which predictions can be made regarding obtaining the same results in future research (Gordon & Meyer, 2002).
3.6.2.1 THE PEARSON PRODUCT-MOMENT CORRELATION

For the purposes of determining whether a statistically significant relationship exists between career indecision and prospective university students, the Pearson product-moment correlation coefficient was used.

The Pearson product-moment correlation is one of the measures of correlation which quantifies the strength as well as direction of such relationship (Sekaran, 2003). The product-moment correlation coefficient is, therefore, suitable for the purposes of the present study since the study attempted to describe the relationship between career indecision and prospective university students.

3.6.2.2 MULTIPLE REGRESSION ANALYSIS

The general purpose of multiple regression analysis (the term was first used by Pearson, cited in Choudhury, 2009) is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. Thus, multiple regression analysis is a multivariate statistical technique that is used for studying the relationship between a single dependent variable and several independent variables.
Furthermore, it provides a method to predict the changes in the dependent variable in response to changes in more than one independent variable (Choudhury, 2009). Hence, it allows the researcher to determine the relative importance of each predictor as well as to ascertain the collective distribution of the independent variables (Sekaran, 2003). The categorical variables namely gender, was used in the regression analysis through dummy coding (Pedhazur, 1982).

3.7 CONCLUSION

The research methodology utilized in the present study was addressed in this chapter. More specifically, the selection of the sample, the measuring instruments used and the rationale for its inclusion, as well as the statistical methods employed in testing the research hypotheses were discussed.
4.1 INTRODUCTION

This chapter focuses on the results obtained based on the empirical analyses conducted to test the hypotheses. The descriptive statistics calculated for the sample are provided in the sections that follow. That is, that data pertaining to the variables included in the study, as collected by the two measuring instruments employed, are summarized by means of the calculation of descriptive measures. In this manner, the properties of the observed data clearly emerge and an overall picture thereof is obtained. The descriptive and inferential statistics generated for the conjectured relationships are presented and discussed.
4.2 DESCRIPTIVE STATISTICS

4.2.1 THE RELIABILITY STATISTICS OF THE CDDQ

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
<td>N of Items</td>
</tr>
<tr>
<td>.899</td>
<td>34</td>
</tr>
</tbody>
</table>

The CDDQ consists of 34 questions, each measuring numerous components regarding career indecision. The Cronbach’s Alpha was calculated to determine the consistency and stability of the questionnaire based on the sample of students. In the Social Sciences and Humanities, conventionally accepted coefficients above 0.7 are regarded as acceptable (Sekaran, 2003). Based on the scale analysis, the reliability of the CDDQ was calculated at 0.899 which is indicative of the fact that the questionnaire was indeed highly reliable.

4.2.2 DESCRIPTION OF CAREER INDECISION

Respondents were categorized into high and low in their career indecision based on the mean score. The majority of respondents reported a high level of career indecision ($M = 150.96$, $SD = 38.8$).
4.2.3 BIOGRAPHICAL INFORMATION

The biographical information of 200 (100%) of the students who completed their questionnaires in the research is graphically illustrated. The age distribution of respondents that participated in the research is illustrated in Figure 4.1.
Figure 4.1 represents the age distribution of the participants. The majority of the respondents (42.5%, N=100) are 17 years of age, while 29.5% are 16 years of age and a further 24% fall into the 18 year old category.
Figure 4.2 depicts the gender of the respondents. The female students represented the vaster of the two genders with 50.5% (n=101), while the male students comprised 49.5% of the respondents (n=99).
Figure 4.3 represents the primary home language of the respondents. The majority of the respondents cited Afrikaans as their home language at 44% (n=88). A further 39.5% of the respondents cited English as their home language (n=79), while 14.5% of the respondents cited Xhosa as their home language. Furthermore, 2% of the respondents cited ‘other’ as their home language.
Figure 4.4 represents the school grade of the respondents. Grade 12 were represented by the majority of the respondents who participated in the research with 49.5% (n=99), while 27% of the respondents represented Grade 11 (n=54) and 23.5% of the respondents were in Grade 10 (n=47).
Figure 4.5 illustrated the type of school the respondents attended in their current academic year. All three types of schools were equally represented during the research which can be illustrated by the fact that 39.5% of the respondents attended a Model C school (n=79), while 30.5% of the respondents attended a Private school (n=61). Furthermore 30% of the students attended a predominantly Lower Income school (n=60).
Figure 4.6 illustrated the number of students who have had access to a career counselor during their high school years. The majority of the students, 54% (n=108) had not had access to a career counselor whilst 46% (n=92) had been exposed to a career counselor during within their high school capacity.
Figure 4.7 follows from the preceding graph as the question had been two fold. The students were first asked whether they had had any access to a career counsellor and if they had answered yes, the respondents were further instructed to say whether having access to a career counsellor had been helpful in any way. Of the students who had said they had had access to a career counsellor 27% (n=54) answered that they thought the career counsellor had proven helpful in some way. Furthermore, 73% (n=146) had depicted that a career counsellor had not been helpful.
Figure 4.8 represents the number of respondents who had stated that they had a career plan. The majority of the respondents, 63.5% (n=127) had answered yes to having a career plan, while 36.5% (n=73) had answered no to having a career plan.
Figure 4.9: The declared career choice of the respondents

Figure 4.9 represents the declared career choice of the respondents. There were certain career choices, which received more support than others from participants. Of the 200 participants, 6.5% (n=13) had cited the accounting vocation as a possible future career choice, where a further 3.5% (n=7) wanted to specialize in accounting by entering the CA stream thereof. A further 5.5% (n=11) had listed becoming a medical practitioner as a possible career choice, while an equal number of the respondents 5% (n=10) had cited becoming a Lawyer and Teacher as their career choice. Business management had been listed by 4.5% of the respondents as a possible career choice (n=9), while 4% of the respondents cited civil engineering and designing as a possible
career choice (n=8). Three and a half percent of the participants felt marine biology and psychology were both possible career choices (n=7). The following vocational choices such as actors, nuclear physicists, nursing, physicians, pilots, police officers as well as writers had been frequently cited by the respondents as an anticipated career choice. (1.5%, n=3, for each career choice).
Figure 4.10 represents whether the participants felt certain or uncertain about their future career choices. More than half of the participants, 50.5% had stated that they felt unsure about their future career choices (n=101), whilst 49.5% of the respondents had stated that they felt sure about their future career choices (n=99).
### 4.2.4 RESULTS OF THE CAREER DECISION MAKING DIFFICULTIES QUESTIONNAIRE

Table 4.1 Descriptive statistics for the dimensions of career indecision

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Indecision</th>
<th>Is the student sure or unsure about their future career choice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson Correlation</td>
<td>.346**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>200</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
The relationship between career indecision and certainty of future career choice was computed. Although there was a moderate positive and direct relationship between career indecision and certainty of career choice, this was significant (r = 0.346, p < 0.01).

Table 4.2 Correlations

<table>
<thead>
<tr>
<th></th>
<th>Indecision</th>
<th>Does the student have a career plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correlation</strong></td>
<td><strong>1</strong></td>
<td>.243**</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td></td>
<td><strong>.001</strong></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>200</td>
<td>200</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
The results for the relationship between career indecision and whether students have a career plan are presented in Table 4.2. This result indicated a positive, albeit, relatively weak relationship, which was also statistically significant ($r = 0.243$, $p < 0.01$).

Table 4.3: T-Test

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>99</th>
<th>152.62</th>
<th>40.179</th>
<th>4.038</th>
</tr>
</thead>
</table>

Case Processing Summary

<table>
<thead>
<tr>
<th>Cases</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>200</td>
<td>89.7</td>
</tr>
<tr>
<td>Excluded(^a)</td>
<td>23</td>
<td>10.3</td>
</tr>
<tr>
<td>Total</td>
<td>223</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Listwise deletion based on all variables in the procedure.
<table>
<thead>
<tr>
<th>Mean</th>
<th>Variance</th>
<th>Std. Deviation</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>150.96</td>
<td>1501.852</td>
<td>38.754</td>
<td>34</td>
</tr>
</tbody>
</table>

Descriptive statistics were deemed necessary to summarize the results and to report the findings effectively. The nature of career indecision amongst prospective university students, how career indecision can be minimized as well as what the likely causes are of career indecision is delineated as follows. Three of the thirty four item questionnaire could be stated as having the most impact on career indecision. Question 6 dealt with whether the respondents were afraid of failure, and surprisingly, many respondents had indicated that they were indeed afraid of failure. These respondents might be afraid of failure because they might lack a clear understanding of themselves, their aptitudes, abilities, interests, ambitions, resources and limitations. The journey of self discovery could greatly help in reducing this fear, because it is only once individuals have learnt and become aware of their strengths and developmental areas, that they can choose to make being afraid of failure an option and not a definite choice. Instead of fearing failure, students should anticipate it and learn from any mistakes, and treat these mistakes as developmental facets in their lives.

Question ten asked the respondents to indicate whether they expected that through the career they choose that they would fulfill their aspirations. The respondents also placed enormous pressure on their prospective careers and had the expectation that through the career they choose, they would be able to fulfill all their aspirations. It would appear that the respondents placed an almost unrealistic expectation on their prospective career before even having entered into it.
Question eleven asked the respondents to state whether they believed that a career choice is a onetime choice and a life-long commitment.

Furthermore, three questions which had the least impact on career indecision. Question one asked the respondents whether they knew that they had to choose a career, but that they did not have the motivation to make the decision, in other words, they did not feel like doing so. Surprisingly, a vast majority of the respondents felt that they were motivated to make the decision, thus these respondents were indeed thinking about their future career choices and vocations.

Question two asked the respondents whether work is not the most important thing in one’s life and therefore the issue of choosing a career does not worry me much. Many students felt that work was an important aspect in their life, hence the reason as to why some of them wanting to invest in their future. It also alerts stakeholders to the fact that many students are very aware of the fact that choosing a career has, and the prospect of a future vocation is an imperative and integral aspect of individuals’ lives, one which should not be taken lightly or treated as blasé.

Furthermore, question twenty four asked the respondents whether they found it difficult to make a career decision because they do not know how to obtain accurate and updated information about the existing occupations and training programs, or about their characteristics.
It can thus be stated that many students are well aware of the fact that gaining access to information regarding possible vocations is not difficult and since many of the students had had access to a career counsellor, this individual could also have provided them with possible ways of finding information about what their possible interests are. Thus, students do not necessarily find it difficult to obtain accurate and updated information, however having to delineate that information and transfer that into reality is where the difficulty lies. Often at times, a certain occupation might look extremely inviting when researching it, but once students engage with that occupation; only then do they observe that prospective career as not being what they thought it would be.

Table 4.4  Descriptive statistics to indicate if the respondent had had access to a career counsellor

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>NO</td>
<td>108</td>
<td>54.0</td>
<td>54.0</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>92</td>
<td>46.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>200</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The present study attempted to ascertain whether the students had access to a career counsellor. Whilst the majority of students did not have access to a career counselor (n=54%), 92 (n=46%) of the students had had access to a career counselor in some or other capacity.

Table 4.5     Descriptive statistics indicating whether those students who had access to a career counsellor, found it helpful or not

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>NO</td>
<td>146</td>
<td>73.0</td>
<td>73.0</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>54</td>
<td>27.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>200</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The study also attempted to find out whether or not career counselling served as a possible solution to eliminate or reduce career indecision. While less than half of the students had access to a career counsellor, 27% (n=54), those who had access to a career counselor (n=146) found that it had been helpful. This could be that having access to a career counsellor was construed as important as the respondents could view the counsellor has distilling knowledge and helping these students identify areas for development.
### 4.3 HYPOTHESES TESTING

#### Table 4.6 Pearson correlation coefficient between the student having a career plan or not and certainty of career choice.

<table>
<thead>
<tr>
<th></th>
<th>Indecision</th>
<th>Does the student have a career plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indecision</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>200</td>
</tr>
<tr>
<td>Does the student have a career plan</td>
<td>Pearson Correlation</td>
<td>.243***</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>200</td>
</tr>
</tbody>
</table>

* * p < 0.01
There will be a statistically significant correlation between participants’ score on the CDDQ and their stated certainty of career choice; that is participants with a higher level of career development would rate themselves as more certain of their career choice. Interestingly, the results of the study did indeed indicate a direct relationship between having a darer plan and career certainty ($r = .243, p < 0.01$). Hence, the null hypothesis is rejected.
Table 4.7  Pearson correlation coefficient between career indecision and certainty about future career choice

<table>
<thead>
<tr>
<th></th>
<th>Indecision</th>
<th>Is the student sure or unsure about their future career choice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indecision</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.346**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td><strong>Is the student sure or unsure about their future career choice</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.346**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>200</td>
<td>200</td>
</tr>
</tbody>
</table>

** p < 0.01

H02

If students are unsure about their future career choice they are more likely to be experience indecision. The relationship between uncertainty about their future career choice and indecision is statistically significant (r = .346, p < 0.01). Hence, the null hypothesis is rejected.
Table 4.8  Multiple comparisons between the three interest differentiation groups were reported.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>LOWER INCOME</td>
<td>60</td>
<td>30.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>MODEL C</td>
<td>79</td>
<td>39.5</td>
<td>69.5</td>
</tr>
<tr>
<td></td>
<td>PRIVATE</td>
<td>61</td>
<td>30.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>200</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*p < 0.05

*p < 0.01

**H03**

There will be statistically significant differences between the high and low interest differentiation groups on the CDDQ scores. The three interest groups were Model C schools, Private schools as well as lower income schools. Interestingly the results of the study indicated that the students attending the Model C school were the least indecisive regarding their future careers and the
students attending the Lower Income school were the most indecisive (p < 0.05). Thus table 3 suggests that there was a statistically significant difference between the high differentiation and low differentiation groups with regard to the CDDQ scores. This finding is in accordance with hypothesis three. Hence, the null hypothesis is accepted.
Table 4.9 The mean scores and standard deviations of the CDDQ appears in Table 4.9

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Levene's Test for Equality of Variances</td>
</tr>
<tr>
<td>F</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Indecision</td>
</tr>
<tr>
<td>Equal variances</td>
</tr>
<tr>
<td>assumed</td>
</tr>
<tr>
<td>.444</td>
</tr>
<tr>
<td>Equal variances</td>
</tr>
<tr>
<td>not assumed</td>
</tr>
<tr>
<td>-.599</td>
</tr>
<tr>
<td>196.383</td>
</tr>
</tbody>
</table>

H04

Gender will significantly impact career readiness and decisiveness. The results of the study found no statistically significant difference in career indecision based on the students’ gender. (t = -0.599, p > 0.05). Hence, the null hypothesis is accepted.
Multiple comparisons between the different age groups were reported

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between Groups</strong></td>
<td>6060.508</td>
<td>3</td>
<td>2020.169</td>
<td>1.352</td>
<td>.259</td>
</tr>
<tr>
<td><strong>Within Groups</strong></td>
<td>292808.087</td>
<td>196</td>
<td>1493.919</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>298868.595</td>
<td>199</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**H05**

Age will significantly impact career readiness and decisiveness. The results of the study found no significant difference in career indecision based on students’ ages (F = 1.352, p > 0.05). Hence, the null hypothesis is accepted.
4.4 CONCLUSION

This chapter has provided an overview of the most salient findings obtained, based on empirical analysis of the data. Consequently, chapter five presents a discussion of the findings obtained and contextualizes the research findings based on previous research on career indecision amongst prospective university students.
DISCUSSION OF RESULTS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter provides an overview of the salient research findings emanating from the research. In order to contextualize the research, comparisons are drawn from available literature on career indecision amongst prospective university students. Furthermore, this chapter provides conclusions that can be drawn from the research and offers suggestions for future research into career indecision amongst prospective university students.

5.2 DESCRIPTIVE STATISTICS FOR CAREER INDECISION AMONGST PROSPECTIVE UNIVERSITY STUDENTS

Although career indecision, could be conceptualized as a complex, multidimensional disorder, there has been a tendency to think of career indecision as a routine developmental task (Akenson & Beecher, 2006; Crites, 1981; Titley & Titley, 2005). Therefore, the statistical procedures used consisted of both descriptive statistics and inferential statistics. Descriptive statistics were deemed necessary to summarize the results and convey the
findings effectively; while inferential statistics provided insight into the degree of certainty with which predictions can be made regarding the same results in future research (Saslow, 2008).

According to Lee (2005), career indecision appears to have a close relationship with self-identity. Lee (2005) states that individuals who are indecisive about their career choices, as a result of confusion about their self-identities, often lack confidence in their career preferences. The study proved that many respondents were unaware of their strengths, possible area of expertise and developmental areas, and thus had an inclination to highly fear that which is unknown to them. Many students seemed to have an idea as to what their future vocation would be, or what they would like it to be, but had not been exposed to the practicalities thereof. It is inherently difficult for students to make career choices, when so many other factors impact on that choice, such as their lack of self knowledge, self information and the stressors from their daily lives.

Lee (2005) reports further that students had the unlikely expectation that through making a career choice, that the choice would ultimately fulfill all their aspirations. This in and of itself is an unrealistic notion to have, because there is often a difference in the way a career is viewed and its practical implementation. The students should not have the unrealistic expectation that a career would solve all their problems, as those in the working arena are likely to inform these students of the fact that once they work, the career that was envisioned might not turn out as was
expected. These expectations, can of course, be overcome to a degree through training workshops, career counselling as well as job shadowing. The latter would allow the student to gain access to certain occupations and spend time with a mentor or coach in order to familiarize themselves with that particular occupation.

Students are inclined to believe that career choice is a once off event and represents a life-time commitment. Many of these students are of the belief that once they decide on a possible career choice, it is a choice to which they would have to adhere with no possibility of change. This, of course, is not always true, as the choice that is made is revisited in an effort to adapt to changing circumstances and aspirations. A career should be a further reflection of the individual and not of the person someone else has expected them to be. Making a career choice ought to be about how informed individuals are about what possible careers are available. There are a plethora of opportunities that may be available, but the journey of self discovery has to start with the individual. The student has to discover what they are passionate about, and not have a decision imposed on them in order to vicariously satisfy parental loss opportunities or desires, but it is a decision and an informed one that they should be able to make. It has been reported that students’ beliefs about their educational and occupational capabilities were significantly related to the nature and range of career options they considered (Gushue & Whiston, 2006).

The present study also revealed that there had been no significant differences between gender and career indecision. Generally, research findings demonstrate that females, across age and
national context, have higher scores on career maturity measures than males (Patton, 2005). However, Fouad (1994) found that females scored higher on only some career related subscales. However, in a study conducted by Gordon and Meyer (2002) no statistically significant correlations were found between gender on the one hand, and the level of career development and certainty on the other. Hence, the present study concurs with Gordon and Meyers findings (2002) of 84 male and female students.

Furthermore, the outcome of this study supports Beerlall’s (1997) finding that the levels of educational and vocational indecision amongst prospective university students were high, as well as previous research suggesting the need for career counselling amongst prospective university students (Jones et al., 1989; Orndorff & Herr, 1996). The implications for career counselling are that individuals are likely to benefit form counselling which covers the broad spectrum of career development, as opposed to specific elements thereof. Thus, the conclusion may be drawn that career counselling would be beneficial for those who are undecided on a career. Taken together, the understanding of factors which contribute to career indecision among university students could serve to provide insights for educators in improving the career developmental process.

5.2.1 INFERENTIAL STATISTICS

Career indecision has been the focus of many previous researchers in an attempt to view the difficulties associated with career decision making. Hall (1992) concluded that work in this area
was characterized by a static and mechanistic, rather than a developmental approach, and that
career indecision was viewed as a feature of the individual rather than the outcome of a dynamic
process. Hall (1992) also censured career indecision research for its apparent disregard of
relevant career theory, and concluded that the construct needed to be broadened to include career
exploration.

Hence, inferential statistics as the body of statistical computations were used in the present study
in order to make certain much needed inferences from the findings based on the sample of two
hundred Grade 10, 11 and 12 male and female students at Private, Model C and Lower Income
Schools in the Somerset West District in the Western Cape. Thus, conclusions about this
population from the study of the sample could be drawn.

The current research results indicate that the three interest groups presented differing levels of
career indecision, whereby the respondents from the Model C school were less indecisive that
the respondents from the Private and Lower Income Schools. However, there remained a huge
difference between the level of indecision amongst students from Private schools and those from
the Lower Income School. One plausible reason for this finding is that students attending a
Private School may have had had differing opportunities to access career counselling, thereby
facilitating career decision making. An assumption is often made that students who attend
Private Schools may be exposed to clearer value systems, given greater access to teachers and
thus have the best possible environment to make the necessary decisions regarding their future
careers. However, it does not mean to say that those students attending a Private school did not experience career indecision, but they may have had access to greater opportunities to make more informed career choices by virtue of their access to resources.

Osipow (1999) drew attention to the difference between indecision, classified as a normal developmental phase within the career decision-making process, and indecisiveness, which he depicted as a personal trait impinging on many decision-making situations. He cited research by Haraburda (1998, p. 152), which has begun to establish the characteristics of indecisiveness that may boost ‘the design of interventions to deal with indecisiveness as opposed to indecision’. Many researchers have concluded that decisiveness was affected by external pressures within the school system.

5.2.1.1 DIMENSIONS OF CAREER INDECISION

People typically make their first career-related decisions during adolescence. Such decisions may have lifelong consequences for their vocational future, psychological well-being, health and social acceptance (Mann, Harmoni & Power, 2001). Adolescent students often have to make decisions concerning their choice of high school and their high school elective courses. These decisions affect their educational and vocational opportunities. Parents and additional significant others explicitly or implicitly affect the adolescent’s decision.
Although some of the adolescents who are required to make these early career decisions do so relatively easily, many others face difficulties before or during the actual process of decision making. These difficulties may lead them to attempt to defer the responsibility for making the decision to someone else or to delay or even avoid making a decision. This may ultimately lead to a less than optimal decision. In addition, the way students handle these decisions may have an effect on the way they will deal with future career decisions. Moreover, the stress involved in the process may affect various aspects of the adolescents’ daily life. For adolescents, who are trying to clarify and consolidate their world, the skill of decision making is central in dealing with various situations (Scott, Repucci & Woolard, 1995).

Indeed, Silva, Rodriguez and Maia (1998) found that adolescents reported that fairly high levels of stress were associated with career exploration and decision making activities in general. On the other hand, a certain degree of decision-specific affective distress among adolescents can also be adaptive because it increases their motivation to seek help and thus decrease the chances for poor of ill-informed decisions (Larson & Majors, 1998). To help students in making career decisions, school counselors have to locate the difficulties the adolescents face and provide them with guidance on how to overcome, or at least minimize, these difficulties.

Research has shown that educational issues and future vocational decisions are of great importance to adolescents (Bibby & Postersky, 2005; Collins & Harper, 2003; Eme, Maisak & Goodale, 1999; Nicholson & Antill, 2008; Rutter, 2000; Violato & Holden, 2003). Thus, as the need to make significant decisions pertaining to their further study, the ability to make them
develops as well. Moreover, research has also shown that it is possible to improve adolescents’
decision-making skills (Mann, Harnomi, Power, Beswick & Ormond, 2003; Owens, 2006;
Silverman & Wells, 2002).

The difficulties related to making career and educational decisions have been associated in the
past with the notion of career indecision. Previous research has devoted much attention to
categorizing the types of problems related to indecision, focusing on several theoretical views
(Campbell & Cellini, 2007; Crites, 1981, Fouad, 1994; Osipow & Winer, 1996, Rounds &
Tinsley, 1984). Much of this discussion focused on categorizing the types of difficulties related
to indecision and on formulating a typology of individuals according to the problems and
difficulties they face. The empirical research has focused on the development of measures for
examining individual differences in career indecision (Gati et al., 1996; Osipow, 1999, Slaney,
1988; Spokane & Jacob, 1996). Some of the measures emerged from the daily practice of career
counseling and they typically provide a global rather than a refined assessment of the
individual’s difficulties.

Researchers typically have gathered concurrent measures of career development variables to
support the validity of the career indecision types generated by cluster analyses. However, there
have been no studies documenting the subsequent academic, career, or student development
outcomes with the different types. Although certain types of indecision consistently emerge from
cluster analyses conducted by independent researchers, there is no evidence that distinct
behaviour patterns are associated with each type. For example, it remains to be demonstrated that
a developmentally undecided student (Flores & Scott, 2003) is more likely than a chronically indecisive student (Callahan & Greenhaus, 1992) responds positively to career counseling, to achieve good grades, to persist in attaining a bachelor’s degree, or to make a smooth transition to employment after graduation.

5.2.1.2 BIOGRAPHICAL CHARACTERISTICS AND CAREER INDECISION

A biographical questionnaire was compiled by the researcher to obtain the following additional information relevant to the study: gender, home language, chronological age, school grade, type of school, declared career choice, whether the students had a career plan, whether the students were unsure or sure about their future career choice, stated level of career indecision and whether the respondents had access to a career counsellor. If the respondents indeed had access to a career counsellor, it was deemed necessary to indicate whether the students had found this useful or not with regards to their indecisiveness.

Gottfredson (1981) identified twelve factors that affect career choice and which places certain populations at risk when making career decisions. Some of these risk factors include poor education, cultural isolation, low self-esteem, non-traditional interests and social isolation. These factors place women, previously disadvantaged groups and individuals with disabilities at a particularly high risk when making career choices. A study conducted in South Africa by Watson and van Aarde (2006), examining the career indecision levels of coloured students, indicates that
age, socio-economic status, intelligence and gender have an influence on the career decision and career maturity levels of coloured students. The results indicate a positive relationship between age and career maturity and further indicate that students with a higher socio-economic status have a higher level of career maturity.

Research conducted by Lundberg, Osborne and Miner (1997) on Anglo ninth-graders and Mexican-American students, as well as studies by Rojewski (2004) among rural economically disadvantaged African-American youths, confirmed Watson and van Aarde’s (2006) findings. It was found that career immature participants were more likely to be men, part of a minority group, educationally disadvantaged and indecisive about career choice. In contrast, career mature students were more likely to be women, and part of previously disadvantaged groups. They are educationally well informed, and more decisive about their careers. Critics maintain that most of the research done in the past on career development theories and career maturity was based on homogeneous white groups, consisting of middle-class adolescent males who experienced continuous vocational development. It is therefore difficult to generalize these findings, especially to the South African context due to its largely heterogeneous student population and given the varied access to education opportunities.

Little doubt exists that gender is an important moderating variable in prospective university students’ career development. Early investigations searching for gender differences in career development are extremely limited (Luzzo, 1999). Furthermore, as many career
developmentalists agree (Diamond, 2005), current occupational theories do not adequately explain the developmental process and occupational choice systems of women.

Traditional career development theory was based almost exclusively on studies of male subjects and gave little attention to the fact that for women the developmental process over the life span was different from that of men and far more complex. Although several promising attempts have been made to provide a more comprehensive theory, little exists today in the way of a fully developed theory of women’s career development (Diamond, 2005).

5.3 PREVIOUS RESEARCH

One of the major tasks students face and have to overcome is the development of their personal and career readiness. Super (1984) introduced the concept of career readiness or career maturity in his career developmental theory and defined it as the individual's readiness for career decision making. Thus, readiness toward a career is a manifestation of the individual’s career maturity. Career readiness or maturity therefore is a continuous development process that can be segmented into a series of stages and tasks. These are orientation toward work, planning, consistency of vocational preference and wisdom of vocational preferences. Together with this process, individuals should increasingly gain the ability and skills to make sound career decisions. A corollary of this is that failure to do so may result in career indecision.
Slaney (1988) noted that career indecision has been used to refer to the problems individuals may have when making career decisions. Guay et al., (2003) postulated that career indecision is one major career-related problem with which students have to contend, and has been a major focus of vocational research over the last few decades. Swanson and D’Achiardi, (2005) added that this includes the antecedents that may influence or delay the decision on making a career choice. Individuals who are undecided often delay the process of making career-related decisions while they acquire additional information about themselves, occupations and the world of work, or the decision-making process. Therefore, knowledge of students’ career indecision may assist in predicting whether they are considered as ‘decided’ or ‘undecided’ on their career choices. In line with this, Callanan (2006) suggested that information on students’ career indecision helps personnel dealing with students and educators to understand factors that might explain their inability to choose an occupation or major field of study.

Trusty and Niles (2004) report a relationship exists between career indecision and students’ achievement of self-awareness, knowledge of occupations and the development of planning capability. Herr, Kramer and Niles (2004) on the other hand, noted that career indecision was associated with aptitude scores, interests, subject preferences, part-time employment experiences, and engagement in the educational planning process. Naidoo (1998) too provides evidence that career indecision can be influenced by age, race, and ethnicity, locus of control, socioeconomic status, work salience, and gender.
Jones and Chenery (1980) proposed a career indecision model that theorized career indecision in a three-dimensional construct. The decidedness dimension relates to how committed individuals are to their choice of a career. The comfort dimension connotes the level of satisfaction individuals feel over their career decision status. On the other hand, the last dimension relates to the explanation of why a person could be undecided. These were identified as lack of self-clarity, lack of occupational, educational information, indecisiveness, and career choice salience.

Akos, Konold, and Niles (2004), Barnes and Carter (2002), Hampton (2006), McCoy (2004) and Sang and Ji (2006) found no gender differences with regards to career indecision. Patton’s studies (2001; 2002) indicated that female students had higher indecision scores as measured by the knowledge score of the Career Development Inventory. On the other hand, a cross-cultural study of British and Chinese International university students by Zhou and Santos (2007) reported that males experienced fewer difficulties than females in career decision-making.

Akos et al. (2004) found a correlation between midyear calculations of Grade- Point Average (GPA) and career indecision and suggested that career indecision might relate to scholastic aptitude, as a cognitive career choice process. Blinne and Johnston (1998) in their three-year longitudinal study found no relationship between academic achievement and career indecision in a college student population. However, a study by Gehlert, Timberlake and Wagner (1992) as well as Hampton (2006) revealed that career indecision is not related to GPA and mathematics
achievement respectively. They further postulate that career barriers may serve as an additional variable that influences the ease of choosing a career.

Swanson and D’Achiardi (2005, p. 434) have defined career barriers as “events or condition, within the person or in his or her environment that make career progress difficult” (p. 434). Hampton (2006) found that students who anticipated more career barriers displayed less confidence in their ability to make career plans and decisions resulting in them being undecided on their career. Patton et al. (2003) found a significant negative relationship between perceived barriers and career development attitude, and a significant positive association between barrier and career indecision.

Further research conducted is of the opinion that one area concerning students’ career development is career choices that may relate to their career decision making. Failure to decide what occupation to seek is known as career indecision. Generally, career indecision has been viewed as an inability to make decisions about the vocation one wishes to pursue (Guay, Senecal, Gauthier, & Fernet, 2003). Thus, career indecision in return reflects career readiness or maturity as students that are undecided about their career typically have trouble with decision making (Hagstrom, Skovholt, & Rivers, 1997; Lucas & Epperson, 1988).
In the light of this, career indecision can be described as a developmental phase through which individuals may pass on their way to reaching a decision. Career indecision may also impinge on other career issues such as choosing a major, making career choices or even unemployment. In a study conducted by Sang and Ji (2006) it was found that a systematic association exists between Korea’s youth unemployment and career indecision. As such, it is postulated that management at universities can assess students’ levels of career development by examining students’ career indecision (Barnes & Carter, 2002).

According to Nile and Bowlsby (2009) students in higher education need to be competent in the career planning process which requires the skills to make decisions and ultimately possess skills required to make career transitions. Research in the field of counselling research suggests that 50% or more of all university students experience career-related problems (Herr et al., 2004). Career choice is a developmental task of late adolescents which university students face. Therefore, choice of a career may be one of the most important of life’s choices. Career concerns faced by first year university students include anxiety for being undecided about a career and also being plagued by the process of career exploration, lack of confidence and uncertainty about an occupation, self assessment and not knowing major strengths and weaknesses, and lack of knowledge of work and what employment entails.
Thus, the interrelationships between socio-demographic variables and career indecision among prospective university students examined in this study may offer useful information to better understand their career development needs and concerns.

5.4 CONCLUSION

The aim of this research was to primarily examine the nature of career indecision amongst prospective university students. The results of the study suggest that a degree of career indecision is prevalent amongst prospective university students. From the sample population of 200 Grade 10, 11 and 12 secondary school students, a number of participants described themselves as uncertain of a career choice. This outcome supports Beerlall’s (1997) finding that the levels of educational and vocational indecision amongst prospective university students is high, as well as previous research suggesting the need for career counselling amongst prospective university students (Jones, 1989; Orndorff & Herr, 1996).

Despite certain limitations which have been mentioned in conducting this current study, the present research provides additional support for the theoretical taxonomy of career decision-making difficulties proposed by Gati et al. (1996). Furthermore, the findings suggest that the CDDQ may be used to adequately assess systematic categories of difficulties that share common features such as cause, timing, impact, or required intervention.
In examining the nature of career indecision amongst prospective university students, the CDDQ was administered to determine the level of career maturity of the participants. The results of this test provided insight into specific deficits with regard to career development, which might hinder the participants from making a career choice. These results also provide valuable information regarding the focus of career counselling for prospective students. Fostering a prospective students’ readiness to make career decisions is the cornerstone of effective career counselling and can provide the basis for further analysis and exploration of interests, aptitudes, values and personality.

Considering the responses of the participants who either received career guidance counseling versus those who did not, it is evident that those who received career guidance counselling experienced less difficulty in the career decision making process than those who did not attend career guidance counseling. Specifically, analysis of the case of a career guidance counsellor indicated that the provision of access to information that adolescents experienced was the primary area where career guidance counselling could make a difference.

The present study has endorsed certain previous findings regarding career indecision, and, it is hoped, also provided some initial findings and recommendations with regard to career indecision amongst the specific population of prospective university students. In referring to boundaries, Thoreau (in Wyman & Son, 1998, p. 8) stated that “the frontiers are not east or west, north or south, but wherever a man fronts a fact.” It is hoped that this study might provide a scientific
contribution towards extending the frontiers of career indecision, a construct that has been much researched, yet to date not comprehensively measured.

5.5 RECOMMENDATIONS FOR FUTURE RESEARCH

On the basis of the findings of the present study and the research literature, the following recommendations may be made. Several authors have suggested that industry as well as educational providers (at both school and university level) should be involved in the career decision making of prospective university students (Gault, Redington & Schlager, 2000; Callanan & Benzing, 2004; Myburgh, 2005; Esters, 2007; Paulins, 2008).

The findings of a study by Gault et al. (2000) determined that there were significant early career advantages for students who have had some form of ‘job shadowing’ in relation to their future, anticipated career choice. This suggests that organizations should provide practical exposure to students as part of their high school program because this may give them an indication of what a career in their chosen field of study would entail. The findings of a study by Callahan and Benzing (2004) support the availability of job shadowing work because the findings show that the completion of such a program during Grade 11 and Grade 12 is a useful strategy in helping secure a career-orientated decision.
If not already in place the establishment of a career counseling program would clearly benefit prospective students wishing to enter different South African Universities. For obvious economic reasons it is suggested that the program be offered in the form of group career counselling whereby the students with different school grades can have discussions relevant into the intended careers they wish to enter. Thus, it is a firm belief that this program may be instrumental in reducing the high psychological and financial costs associated with career indecision as a similar program was advanced by De Bruin and De Toit (1997) which provided positive results in dealing with the specific causes of career indecision.

It also makes good common sense that an attempt should be made to allocate prospective students to groups according to their level of career development, possibly by means of an initial assessment which may include instruments such as the Career Decision Making Difficulties Questionnaire (CDDQ) and a biographical questionnaire. This suggestion is in keeping with previous proposals advocating assessment prior to career interventions (McAuliffe, 1991; Miller, 1993; Schumrum & Hartman, 2005; Vondracek, 2006).

The effectiveness of using the CDDQ in the practice of a local career guidance counsellor at the various high schools in determining adolescents’ level of difficulties in career decision-making means that further use of the CDDQ should be encouraged. Further research could thus be conducted using the CDDQ with different population groups and with career guidance counsellors who operate from a variety of career guidance counseling approaches in order to draw more extensive comparisons. In additions, more variables like the parents’ marital status,
amongst others, could be introduced as the focus of future studies in order to draw further comparisons.

Specifically, the CDDQ may be used for needs assessment of particular groups. For example, school counsellors can use the CDDQ to facilitate the identification of groups of students who have difficulties related to certain aspects of making a career choice. The CDDQ also makes it possible to assess outcomes of interventions aimed at reducing general or specific career decision making difficulties. However, further research aimed at improving the scales’ reliability is needed before any revised version of the CDDQ can be introduced as a potential diagnostic instrument.

This research has direct implications for counselling and general intervention programs as students should be taught basic decision-making skills. Such interventions may ease students’ decision-making processes and help them make better career decisions. Further research should aim at cross-cultural validation of the taxonomy and its relative relevance to adolescents in other countries. It should also investigate whether the need for instruction in decision-making skills is a common phenomenon in other countries and whether teaching such skills to students indeed helps them make better decisions. Further research should also examine whether the major difficulties contributing to the subjective feeling of severity of difficulty are similar to those that emerged in this study.
The research design and methodology could also be replicated in future studies to compare the difficulties in the decision-making process of adolescents with those in other developmental stages. Thus, future studies could look at comparing the effectiveness of the Career Development Questionnaire (CDQ), the Career Decision Making Difficulties Questionnaires (CDDQ) and other prominent means of measuring crucial aspects of career indecision.

The results of the present study should be considered within the context of certain limitations. The sample population consisted predominantly of Afrikaans and English speaking participants, with a minor representation of the African languages. The level of career indecision stated by the participants was not validated by empirical measurement and thus generalization of the results should therefore be restricted. Thus, although the findings are useful and highlighted key areas of difficulty in the career decision making process of adolescents, it is important to be aware that the findings derived from this study only pertain to Model C, Private and Lower Income Schools in a specific district in the Western Cape and thus the results cannot be taken to be universally applicable to all high schools within the Western Cape.

Researchers and practitioners have used measures of career-related self-efficacy to facilitate knowledge about, and interventions to enhance, the vocational development of many prospective university students. Continued research is thus needed to develop and use career-related self-efficacy measures with students from varied cultures, backgrounds and future vocational choices. In addition, the use of these measures in the evaluation of vocational interventions is strongly recommended.
Finally, the present research suggests that the general structure of difficulties consisting of Lack of Readiness, Lack of Information, and Inconsistent Information underlies career-related decisions made in high school. Research conducted by Shefer (2000) found that the taxonomy of difficulties used in this research might also underlie difficulties in other types of decisions faced by young adults. Future research might further test the hypothesis that the same taxonomy can be applied to difficulties involved in other, non career-related decisions faced by adolescents and adults.

Making a career decision is a step everyone must take. While some individuals make such decisions easily and with no apparent difficulties, many individuals face difficulties in making their career decisions. To help individuals who encounter difficulties in their career decision-making process, it is necessary to locate and identify their specific areas of difficulty. Figure 5.1 provides a heuristic framework within which career decision making may be enhanced in prospective university students.
Figure 5.1: Enhancing career decision making
REFERENCES


Trusty, J. & Niles, S.J. (2004). Realized Potential or Lost Talent: High School Variables and


COVER LETTER

April, 2010

Dear student/colleague

RE: RESEARCH FOR MASTERS MINI THESIS

I am presently enrolled for the Masters Program in Industrial Psychology at the University of the Western Cape and am working alongside Mr. Karl Heslop, my supervisor, in researching my thesis. The aim of the study is to examine and assess career indecision amongst prospective university students.

While permission has been granted for doing research, I am dependent on your input and participation to complete this study successfully.

Please be assured that all information will be treated as STRICTLY CONFIDENTIAL and will only be used for purposes of this study. You are not required to write your name or any personal information on the questionnaire. All data will be kept completely anonymous and will be directed to me. Please note that your participation is voluntary.
I would like to take this opportunity to thank you for your co-operation.

Sincerely

SULEILA VAN REENEN
### BIOGRAPHICAL INFORMATION

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<tr>
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<td><strong>Type of School</strong></td>
<td>Model C</td>
<td>Private</td>
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- **Have you had access to a career counselor?**
  - Yes
  - No

- **If you answered yes to the previous question, do you think having access to a career counselor has helped you in any way?**
  - Yes
  - No
| Do you have a career plan? | Yes  
|:--------------------------:|:--:
|                           | No |
| Declared Career Choice   | (example: Engineer, Psychologist, etc.) |
| Are you sure or unsure about your future career? | Sure about career choice  
|                           | Unsure about career choice |
CAREER DECISION MAKING DIFFICULTIES QUESTIONNAIRE (CDDQ)

1. DIRECTIONS/INSTRUCTIONS FOR COMPLETION

Please read through the following questionnaire and respond to all the questions/statements by shading the number which applies to you.

This should not take you more than a few minutes to complete.

Please ensure that you respond to all the questions/statements. There are no right or wrong answers as each person is entitled to his or her opinion.
2. **QUESTIONNAIRE**

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<th>The difficulty</th>
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<tr>
<td><strong>QUESTION 1</strong> I know that I have to choose a career, but <em>I don't have the motivation</em> to make the decision now (I don't feel like it).</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
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<td><strong>QUESTION 2</strong> Work is not the most important thing in one's life and therefore the issue of choosing a career doesn't worry me much.</td>
<td>1 2 3</td>
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<td><strong>QUESTION 3</strong> I believe that I do not have to choose a career now because <em>time will lead me to the right career choice</em>.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>8 9</td>
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<td><strong>QUESTION 4</strong> It is usually <em>difficult for me to make decisions</em>.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
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<td><strong>QUESTION 5</strong> I usually feel that <em>I need confirmation and support for my decisions</em> from a professional person or somebody else I trust.</td>
<td>1 2 3</td>
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<td><strong>QUESTION 6</strong> I am usually afraid of <em>failure</em>.</td>
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<td><strong>QUESTION 7</strong> I like to <em>do things my own way</em>.</td>
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<td>QUESTION 8</td>
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<td>I expect that entering the career I choose will also <strong>solve my personal problems</strong>.</td>
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<td>I believe there is only <strong>one career that suits me</strong>.</td>
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<td>I expect that through the career I choose I will <strong>fulfil all my aspirations</strong>.</td>
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<td>I believe that a <strong>career choice</strong> is a <strong>one-time choice</strong> and a <strong>life-long commitment</strong>.</td>
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<td>I always do what I am told to do, even if it goes against my own will.</td>
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<td>I find it difficult to make a career decision because I do not know <strong>what steps I have to take</strong>.</td>
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<tbody>
<tr>
<td>I find it difficult to make a career decision because I do not know <strong>what factors to take into consideration</strong>.</td>
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<th>QUESTION 15</th>
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</table>
| 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**
I find it difficult to make a career decision because I still do not know which occupations interest me.

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).

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).

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.

I find it difficult to make a career decision because I do not have enough information about the variety of occupations or training programs that exist.
<table>
<thead>
<tr>
<th>QUESTION 21</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>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 programs that interest me (for example, the market demand, typical income, possibilities of advancement, or a training program's perquisites).</td>
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<tr>
<th>QUESTION 22</th>
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<tbody>
<tr>
<td>I find it difficult to make a career decision because I don't know what careers will look like in the future.</td>
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<th>QUESTION 23</th>
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</thead>
<tbody>
<tr>
<td>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).</td>
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</thead>
<tbody>
<tr>
<td>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 programs, or about their characteristics.</td>
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</thead>
<tbody>
<tr>
<td>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).</td>
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<td>QUESTION 26</td>
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<tr>
<td>I find it difficult to make a career decision because I have <strong>contradictory data about my abilities and/or personality traits</strong> (for example, I believe I am patient with other people but others say I am impatient).</td>
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<tbody>
<tr>
<td>I find it difficult to make a career decision because I have <strong>contradictory data</strong> about the <strong>existence</strong> or the <strong>characteristics</strong> of a particular occupation or training program.</td>
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<tbody>
<tr>
<td>I find it difficult to make a career decision because I'm <strong>equally attracted by a number of careers</strong> and it is difficult for me to choose among them.</td>
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</thead>
<tbody>
<tr>
<td>I find it difficult to make a career decision because I <strong>do not like any of the occupations or training programs to which I can be admitted.</strong></td>
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</thead>
<tbody>
<tr>
<td>I find it difficult to make a career decision because the occupation I am interested in involves a <strong>certain characteristic that bothers me</strong> (for example, I am interested in medicine, but I do not want to study for so many</td>
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### QUESTION 31
I find it difficult to make a career decision because **my preferences cannot 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).

### QUESTION 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**.

### QUESTION 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.

### QUESTION 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 they recommend that I choose, or about what career characteristics should guide my decision.