THE CAREER MATURITY OF HIGH SCHOOL PUPILS IN THE
STELLENBOSCH AREA

by

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Thesis presented in partial fulfilment of the requirements for the degree of Master in
Economics (Industrial Psychology) at the University of Stellenbosch.

SUPERVISOR: DR. HENRY D. VOS

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Date: 15/2/99
SUMMARY

The aim of the present study was to assess the career maturity of Coloured matriculants in three schools in the Stellenbosch area. The study secondly aimed at determining the influence of socio-economic status, locus of control, self-esteem, mental ability, gender, school and residential area on career maturity. It was further envisaged that the results of this study would be useful for the improvement of vocational guidance teaching at the three participating schools, and that it would also provide baseline data on career development research in disadvantaged communities in South Africa.

The 303 (male and female) subjects participating in the present study were all chosen from schools in the Stellenbosch area. To compare the possible effects of social and environmental factors on career maturity for different schools, one school each, from a typical township environment, a typical middle class environment and a typical rural/farming environment, was selected.

Six measuring instruments were administered to all subjects on the same day. The instruments were the Career Development Questionnaire, Coopersmith's Self-Esteem Inventory, Rotter's Internal-External Scale, the Mental Alertness Test of the Potential Index Battery, the Socio-Economic Deprivation Questionnaire and a Biographical Questionnaire.

A correlational analysis (using the Pearson Product-Moment Correlation Coefficient, \( r \)) was done to determine whether a relationship existed between career maturity and the independent variables of socio-economic status, locus of control,
self-esteem, mental ability, gender, school and area of residence. A number of One-way Analysis of Variance computations were also carried out to determine the relationship of the significant independent variables on the dependent variable of career maturity.

There were significant low negative correlations between career maturity, decision-making, career information, the integration of self and career information, career planning and socio-economic status (p < .01). The correlation between career maturity and locus of control is a significant moderate negative correlation (p < .01), whereas the correlation between self-information, decision-making, career information, the integration of self and career information, career planning and locus of control is a significant low negative correlation (p < .01). There were significant moderate positive correlations between career maturity, decision-making and self-esteem (p < .01), whereas the correlation between self-information, career information, the integration of self and career information, career planning and self-esteem was a significant low positive correlation (p < .01). There were significant low positive correlations between career maturity, self information, decision-making, career information, the integration of self and career information and mental ability. Correlations with career maturity, self-information, career information and the integration of self and career information, were at the p < .01 level, whereas the correlation with decision-making was at the p < .05 level.

There were significant low negative correlations between self-information (p < .01), decision-making (p < .05) and gender. Significant positive low correlations were found between career maturity, self-information, career information, the integration
of self and career information, career planning and school attended (p < .01). No significant correlations were found between career maturity, self-information, decision-making, career information, the integration of self and career information, career planning and area of residence.

A discussion of the results, as well as recommendations, were discussed. From the results of the present study, it can be concluded that social and environmental factors do influence the level of career maturity of Coloured matriculants and it supports the findings of previous studies done on the subject of career maturity.
Die doel van hierdie ondersoek was om die loopbaanvolwassenheid van Kleurling matrikulante, in drie skole in die Stellenbosch omgewing, te evalueer. Die ondersoek was tweedens ook daarop gemik om die invloed van sosio-ekonomiese status, lokus van kontrole, selfbeeld, verstandsvermoë, geslag, skool en woonarea op loopbaanvolwassenheid te bepaal. Dit word voorsien dat die resultate van hierdie ondersoek gebruik kan word om onderrig in beroepsvoorligting by die betrokke skole te verbeter. Die ondersoek bied waardevolle inligting, omtrent loopbaanontwikkelingsnavorsing van agtergeblewe gemeenskappe in Suid Afrika.

Die 303 (mans en vroue) persone wat aan hierdie ondersoek deelgeneem het, is almal uit skole in die Stellenbosch omgewing gekies. Om 'n vergelyking te tref van die moontlike invloed van sosiale- en omgewingsfaktore op loopbaanvolwassenheid by die verschillende skole, is een skool elk uit 'n tipiese "township" omgewing, 'n tipiese middelklas omgewing en 'n tipiese landelike/boerdery omgewing gekies.

Alle kandidate was op dieselfde dag aan ses verskillende meetinstrumente onderwerp. Die instrumente is die Loopbaanontwikkelingsvraelys, Coopersmith se Selfbeeld Inventaris, Rotter se Interne-Eksterne Skaal, die Verstandelike Helderheidstoets van die Potential Index Battery, die Sosio-ekonomiese Deprivasie Vraelys en 'n Biografiese Vraelys.

'n Korrelasie ontleiding (Pearson Produk-Moment Korrelasie Koeffisiënt, r) is gedoen om vas te stel of daar enige verband tussen loopbaanvolwassenheid en die onafhanklike veranderlikes sosio-ekonomiese status, lokus van kontrole, selfbeeld,
verstandsvermoë, geslag, skool en woonarea is. Daar is ook 'n aantal Een-rigting Variansie ontledings gedoen om die verhouding tussen die beduidende onafhanklike veranderlikes en die afhanklike veranderlike loopbaanvolwassenheid, te bepaal.

Daar was beduidende lae negatiewe korrelasies tussen besluitneming, loopbaan inligting, die integrasie van self en loopbaan inligting, loopbaanbeplanning en sosio-ekonomiese status (p < .01). Die korrelasie tussen loopbaanvolwassenheid en lokus van kontrole, is 'n beduidend matige negatiewe korrelasie (p < .01), terwyl die korrelasie tussen self inligting, besluitneming, loopbaan inligting, die integrasie van self en loopbaan inligting, loopbaanbeplanning en lokus van kontrole 'n beduidende lae negatiewe korrelasie is (p < .01). Daar was beduidende matige positiewe korrelasies tussen loopbaanvolwassenheid, besluitneming en selfbeeld (p < .01), terwyl die korrelasie tussen self inligting, loopbaan inligting, die integrasie van self en loopbaan inligting, loopbaanbeplanning en selfbeeld 'n beduidende lae positiewe korrelasie is (p < .01). Daar was ook beduidende lae positiewe korrelasies tussen loopbaanvolwassenheid, self inligting, besluitneming, loopbaan inligting, die integrasie van self en loopbaan inligting en verstandsvermoë. Korrelasies met loopbaanvolwassenheid, self inligting, loopbaan inligting en die integrasie van self en loopbaan inligting is teen die p < .01 peil, terwyl die korrelasie met besluitneming teen die p < .05 peil is.

Daar was beduidende lae negatiewe korrelasies tussen self inligting (p < .01), besluitneming (p < .05) en geslag. Beduidende positiewe lae korrelasies is gevind tussen loopbaanvolwassenheid, self inligting, loopbaan inligting, die integrasie van self en loopbaan inligting, loopbaanbeplanning en skool bygewoon deur matrikulante
(p < .01). Daar was geen beduidende korrelasies tussen loopbaanvolwassenheid, self inligting, besluitneming, loopbaan inligting, die integrasie van self en loopbaan inligting, loopbaanbeplanning en woonarea nie.

'n Bespreking van die navorsings resultate en die nodige aanbevelings word gemaak. Die huidige studie bevestig dat sosiale- en omgewingsfaktore wel die loopbaanvolwassenheid van Kleurling matrikulante beinvloed en dit ondersteun die bevindinge van vorige studies rondom loopbaanvolwassenheid.
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CHAPTER ONE

INTRODUCTION

1.1 THE IMPORTANCE OF THIS STUDY

South African society is currently characterised by continuous change and the major force responsible for change, is the development on the political front. Apart from political change, there are also changes in economic, technological, cultural and demographic environments. These changes cannot be ignored, because they could have far-reaching implications for society in general, and especially, for human resources management in this country.

The South African economy has a huge shortage of suitably qualified people in scientific, technical, engineering and accounting fields, which are the areas of major concern (Gerber, Nel and van Dyk, 1995; Hutton-Wilson, 1988 and Kaul, 1991). Our need for scientists is confirmed by Moore and Harrison (1996) who are of the opinion that we need practical scientists more than theoretical, academic scientists and from there their notion that we need more technicians, engineers and technologists. They are also of the opinion that South Africa has a large imbalance of engineers/scientists over technicians/technologists, with a greater need for the latter group. Stead (1996), on the other hand, is of the opinion that the school curriculum in South Africa does not sufficiently correlate with technology and this is reflected in the high ratio of student enrolments at universities over technikons.

Kaul (1991), in a Commonwealth Secretariat report, found that in 1985, South Africa had no more than 6 Black professional engineers, only 20 Black chartered
accountants (out of 12 000 in 1989), while only 5% of all professionals were Black. According to Hassen Kajie (1996), chairperson of the Association for the Advancement of Black Accountants (ABASA) in the Western Cape, South Africa currently has 700 Black, Coloured and Indian accountants out of a total of 16 000. He is of the opinion that his organisation will find it difficult, if not impossible, to reach its Project 2 000 goal of 2 000 Black chartered accountants.

In a study by the University of Cape Town Graduate School of Business (Bowmaker-Falconer, 1993), it was found that 76% of our workforce falls into the semi-skilled and unskilled categories and, according to Gerber, Nel and van Dyk (1995) South Africa functions with only 9% of the economically active population being highly skilled and 2% managerial staff, while the figure for first world countries is 33% and 7% respectively. What makes our skills shortages even more problematic, is the fact that Whites make up 78,82% of the skilled workforce, Blacks 9,33%, Asians 4,24% and Coloureds 7,62% (Bowmaker-Falconer, 1993). Bowmaker-Falconer's (1993) survey also found that Whites occupy 94,52% of management positions, with Blacks, Coloureds and Asians occupying only 5,48% of these positions. In his subsequent survey (Bowmaker-Falconer, 1996), however, an improvement was evident and it was found that Whites occupy 89,64% of management positions, with Blacks, Coloured and Asians occupying 4,72%, 2,59% and 3,05% respectively.

One of the major reasons for these shortages is restrictive legislation of the past, which led to over-utilization of the White population and under-utilization of the non-white population. There is, however, at present a realisation amongst most
South Africans (Gerber et al., 1995; Hutton-Wilson, 1988; Moore and Harrison, 1996; Stead, 1996 and Van der Walt, 1990) that it is essential that, on the medium to long term, more engineers, scientists and other suitably qualified people should come from population groups other than White. The need for this is even more pressing when one looks at the decline in population growth figures for Whites, who have made the major contribution to our high level skills in the past (Central Statistical Services, 1992; Dostal, 1985 and Gerber et al., 1995).

1.1.1 AFFIRMATIVE ACTION

There is a general perception that affirmative action programmes would solve the problems created by past discriminative legislation and the skills shortages in this country. While it is true that affirmative action programmes could make a vital contribution, it is questionable whether it would solve these problems adequately in its present form. As applied currently, affirmative action programmes only address these issues from the point of people entering the labour market. Recent statistics (Bowmaker-Falconer, 1993 and 1996; Gerber et al., 1995; Kajie, 1996 and Kaul, 1991) show that disadvantaged groups in this country, still do not affect the areas in which major skills' shortages exist. A major reason for this is, inter alia, that the education system prepares people from disadvantaged communities, mainly for the social sciences, and not for the areas in which the skills shortages are experienced. Moore and Harrison (1996) cite some examples of trying to increase the pool of available Mathematics and Science matriculants, but warn that there is plenty of room for other initiatives to address the need for suitably qualified people.
It is true to say that suitably qualified people from groups other than White are needed, but in reality this is something that needs to be carefully planned and implemented. The National Manpower Commission (1991) states that initiatives in the field of education are the first steps to addressing the skills shortages and that career-orientated education should be made a priority. According to Gerber, Nel and van Dyk (1995) it is vitally important to provide pupils with career information, so that they are made aware of the career opportunities available to them and the requirements of differing fields. Jacobs, van Jaarsveld & von Mollendorf (1988) state that people should realise that their career lives are not confined to just a few traditional occupations. What can thus be inferred from the above is that affirmative action in the educational system of disadvantaged communities is needed.

One way of applying affirmative action in the educational system of disadvantaged communities, is through rigorous career development programmes, which expose people from disadvantaged groups to different types of careers, as soon as possible, thereby influencing the careers that they choose. Applying affirmative action at this level, addresses the issues of skills shortages and discriminative legislation at grassroots level, as it is there where the first major career choices are made, where proper guidance should be applied and where people should be channelled into the skills shortage areas.

1.1.2 CAREER DEVELOPMENT AND CAREER MATURITY

How do we address this affirmative action? It should be done through addressing career development and career maturity issues. Career development is a lifelong
process through which people make an occupational choice or various occupational choices until they are no longer part of the economically active population (Isaacsen, 1985; Langley, 1990 and Tolbert, 1980). In order to make this occupational choice or choices, there are certain developmental capabilities or tasks that need to be mastered at certain stages of life. A person, who is able to master these developmental capabilities or tasks appropriate to his or her specific stage of life, is seen as a career mature person (Super, 1984). Phillips, Strohmer, Berthaume and O'Leary (1983) describe a career mature person as someone who is able to:

- be oriented towards planning
- accept responsibility for choices
- be aware of and makes use of available resources in planning
- have specific information about preferred occupations
- demonstrate competence in decision-making.

From the above it is clear that only a career mature person would be able to make a proper career choice from the multitude of possibilities that are available.

1.1.3 THE NEED FOR RESEARCH ON CAREER DEVELOPMENT AND CAREER MATURITY

The area of great concern is whether students from disadvantaged groups in this country have the required capabilities to make proper career choices at various stages of life. As far back as 1980, Cloete (1980) found that the major vocational guidance problem faced by Black youth, is the occupational choice they have to
make from a multitude of possibilities. Herman (1970) found that 94% of Coloured learners experienced career development problems and both teachers and learners rated career adjustment as the most significant problem area. These two problem areas as identified by both Cloete and Herman, are not just true of Blacks and Coloureds in particular, but of all disadvantaged groups in South Africa. At present the problem is exacerbated by political changes and a greater multitude of occupational possibilities.

To address the above-mentioned career development problems, there is a need for career development interventions. According to Reid-Van Niekerk and Van Niekerk (1990), these interventions should be directed at specific needs, which need to be researched. Research on career development in South Africa has, however, been mainly done on small, selected white adolescent samples (Watson and van Aarde, 1986). Research done on disadvantaged groups is virtually non-existent. In one of the few studies, Watson and Van Aarde (1986) found that school grade, age, socio-economic status, mental ability and gender were significantly related to career maturity of Coloured learners in the Port Elizabeth area.

1.2 OBJECTIVE OF THIS STUDY
On the basis of the above explanation in respect of the need for research on career development and career maturity amongst the disadvantaged groups of the R.S.A., the aim of this study is firstly to assess the career maturity of Coloured matriculants in three schools in the Stellenbosch area. The study is secondly aimed at determining the influence of socio-economic status, locus of control, self-
esteem, mental ability, gender, school and residential area on career maturity. These factors were specifically chosen due to their significance in the development of career maturity and will be discussed in chapter three. It is envisaged that the results of this study would be of use for the improvement of vocational guidance teaching at the three participating schools, and that it would also provide baseline data on career development research in disadvantaged communities in South Africa.

1.3 CONCLUSION

In conclusion it could be said that there is a definite need for career development research in respect of disadvantaged communities in South Africa. This study in particular will focus on the factors that influence the career development process of Coloured matriculants in the Stellenbosch area.

The first chapter of this study deals with the need for such research, while the second chapter focuses on theories of career development and career maturity. Chapter three highlights the factors which influence career maturity, while in chapter four, the particular research problem and hypothesis researched in the study, are discussed. Chapter five includes the research methodology and measuring instruments, while chapters six and seven cover the research results, a discussion of these results and some concluding remarks and suggested solutions.
CHAPTER TWO
THEORIES OF CAREER DEVELOPMENT AND CAREER MATURITY

2.1 INTRODUCTION

The focus of this research is on the factors that influence the career maturity of matriculants. Researching career maturity cannot be done without considering the process of career development. Super (1973) perceives a career mature person as someone who is able to master the career development tasks appropriate to his or her specific stage of life. According to him, career maturity has a vital place on the continuum of career development which starts at exploration and stops at decline.

From the outset, it is thus important, that the two concepts of career maturity and career development be clearly understood and properly investigated. This chapter will include a discussion of career development, career development theories, career maturity and the identification of factors which influence career development and career maturity.

2.2 CAREER DEVELOPMENT

Isaacson (1985) defines career development as "... a lifelong process based upon an interwoven and sequential series of educational, occupational, leisure and family choices" (p. 32).

According to Langley (1990, p. 2) career development implies "a lifelong process, sequence and tasks relating to an individual’s work-related behaviour." This includes all work-related experiences, feelings and activities involved in preparing for, entering into, progress in and retiring from a specific formal occupation. Tolbert
(1980), on the other hand, defines career development as "... a lifelong process of developing work values, crystallising a vocational identity, learning about opportunities, and trying out plans in part-time, recreational, and full-time work situations. ...it involves increasingly effective investigation, choice and evaluation of occupational possibilities" (p. 31).

Petersen (in Burck & Reardon, 1984) sees career development as a lifelong process with several developmental activities which include:

1. developing and clarifying self-concepts,
2. relating occupational information into self-information,
3. 'teaching' decision-making skills,
4. providing opportunities for occupational reality testing, and
5. assisting individuals in educational and occupational placement processes

Although the above definitions do not reflect a clear or common definition of the concept career development, they do, however, agree that career development is a 'lifelong process' with the end-result being an occupational choice, or various occupational choices, until the individual is no longer a member of the economically active population.

Apart from the various definitions on career development, there are also different theories of career development. Devantier (1991) indicates that career development theories developed during the forties, primarily focus on career choice, whereas the theories of the fifties see career development against the background of a person's total life-span.
Career development theories have matured over the years and different authors (Jacobs et al, 1988; Osipow, 1983; Sonnenfeld and Kotter, 1982; Tolbert, 1980 and Zunker, 1981) use different ways of classifying career development theories into a framework. Although classification of theories can lead to an oversimplification, Watson (1984) sees the classification of theories as essential, because they provide researchers with a framework within which to do research. For the purpose of this research, Osipow’s (1983) classification will be used.

2.3 THEORIES OF CAREER DEVELOPMENT

Osipow’s (1983) classification divides career development theories into four basic approaches:

1. trait-factor approach
2. personality-based approach
3. developmental approach
4. situational approach.

Following are some of the theories as discussed under each approach.

2.3.1 TRAIT-FACTOR APPROACH

Osipow (1983) and Langley (1990) see this approach as a straightforward matching of an individual's abilities and interests with the world's vocational opportunities. Once this has been accomplished, it solves the problems of vocational choice for that individual. Miller (in George & Cristiani, 1981) suggested that five assumptions underpin this approach:
1. career/vocational development is largely a cognitive process where reasoning is used to reach decisions,
2. occupational choice is a single event,
3. there is only one right vocation/career for every individual,
4. a single type of person works in each job, and
5. there is an occupational choice available to each individual.

Sonnenfeld and Kotter (1982) see Holland’s theory as the most influential theory that emerged from the trait approach. This theory is, however, also seen as a transition from the trait to personality approach. Van Staden (1992) is of the opinion that when the emphasis is on personality types within a specific occupational environment, then Holland’s theory also need to be classified under personality based approaches.

2.3.2 PERSONALITY BASED APPROACHES

Personality-based theories suggest that an occupational choice depends on an individual's personality which is the product of earlier experience (Isaacson, 1985). The theories of Holland and Roe will be discussed.

2.3.2.1 Holland’s Theory

Holland’s (1973 & 1985) view of career development has grown out of his experience with people who had to make career choices. According to his theory, people are attracted to careers by their particular personalities and numerous variables that constitute their backgrounds. Four key assumptions constitute the
heart of Holland's (1973) theory and they are supplemented by several secondary assumptions. Following are the assumptions:

1. **In our culture, most persons can be categorised as one of six types: realistic, investigative, artistic, social, enterprising or conventional.**

   Each type is the product of an interaction among a variety of cultural and personal forces, which include peers, biological heredity, parents, social class, culture and the physical environment. Out of this experience a person learns first to prefer some activities as opposed to others. These activities become strong interests and these interests lead to a special group of competencies. Finally, a person's interests and competencies lead to a particular personal disposition that leads him or her to think, perceive and act in special ways. For example, people who resemble the social type are more likely to seek out social occupations such as teaching, social work or the ministry.

2. **There are six kinds of environments: realistic, investigative, artistic, social, enterprising, or conventional.**

   Each environment is dominated by a given type of personality and each environment is typified by physical settings posing special problems and opportunities. For example, social environments are "dominated" by social types of people.
3. **People search for environments that will let them exercise their skills and abilities, express their attitudes and values and take on agreeable problems and roles.**

Realistic types seek realistic environments, social types seek social environments, etc. To a lesser extent, environments also search for people through friendships and recruiting practices.

4. **A person's behaviour is determined by an interaction between his personality and the characteristics of his environment.**

If a person's personality pattern and the patterns of his or her environment are known, knowledge of personality types and environmental models could, in principle, be used to forecast some of the outcomes of such a pairing. Such outcomes include choice of career, job changes, career achievement, personal competence and educational and social behaviour.

5. **Consistency.**

Within a person or environment, some pairs of types, or environments, are more closely related than others. Consistency is the degree of relatedness between personality types or between environmental models. There are three levels of consistency each, for both personality types and environments. Profile patterns composed of adjacent types on the hexagon (see figure 2.1) are most consistent (for example, Realistic-Investigative, Investigative-Artistic and so on). Profile patterns composed of opposite types on the hexagon are least consistent (Realistic-Social, Investigative-Enterprising and Artistic-Conventional). Profile patterns composed of every other type on the
hexagon form an intermediate level of consistency (for example, Realistic-Artistic, Investigative-Social, and so on).

![Hexagonal Model for Defining the Psychological Resemblances Among Types and Environments and their Interactions](image)

**FIGURE 2.1: A Hexagonal Model for Defining the Psychological Resemblances Among Types and Environments and their Interactions (Holland, 1985, p.29).**

6. **Differentiation**

   The degree to which a person or an environment is well defined is its degree of differentiation. Some persons or environments are more clearly defined than others. In contrast, a person who resembles many types, or an environment that is characterised by about equal numbers of the six types, is undifferentiated or poorly defined.

7. **Identity.**

   This concept provides an estimate of the clarity and stability of a person's identity or the identity of an environment. Personal identity is defined as the possession of a clear and stable picture of one's goals, interests and talents.
Environmental identity is present when an environment or organisation has clear, integrated goals, tasks and rewards that are stable over long time intervals. Identity, consistency and differentiation are all concerned with the clarity, definition or focus of the types and environmental models.

8. Congruence.

Different types require different environments. For instance, Realistic types flourish in Realistic environments. Incongruence occurs when a type lives in an environment that provides opportunities and rewards foreign to the person's preferences and abilities.

There are four levels of congruence. The highest degree of congruence occurs when a personality type operates in a congruent environment (for example Realistic type in a Realistic environment). The second highest degree of congruence occurs when a personality type operates in an adjacent environment (for example Investigative type in a Realistic or Artistic environment). The third degree of congruence occurs when a personality type operates in an environment on the second level from the personality type on the hexagonal model (for example Investigative personality type in a Social or Conventional environment). The fourth grade of congruence occurs when a personality type operates in an opposite environment (for example Investigative personality in an Enterprising environment).
9. **Calculus**

The hexagonal model of this theory (see figure 2.1) provides a calculus for the theory - an abstract model for linking the main ideas so that the theory can be applied to practical or theoretical problems. For instance, after the user assesses a person's type and his or her environment, the hexagon can be used in conjunction with the formulations for the types and environments to define degrees of consistency and congruence and to predict the expected outcomes - satisfaction, achievement and change in jobs.

Apart from the assumptions discussed above, the following principles form the foundation of Holland's (1973, 1985) vocational classification model:

* A person's choice of a vocation is a function of his personality. For many years it was popular to interpret people's scores on vocational interest inventories and their choices of vocation as a function of their vocational interests, as if these interests were different from, or independent of personality. It was, however, learnt that interests and abilities can lead to certain predispositions which make people think, perceive and react in a certain way. These predispositions can be called personality orientations.

* Interest inventories are personality inventories. The content of vocational interest inventories provides scales whose reliabilities and validities approximate those obtained for other methods of assessing personality.
* Vocational stereotypes have reliable and important psychological and sociological implications for the individual. As we judge people by their friends, dress and actions, we judge them by their vocations and this gives us a useful knowledge of what people in various occupations are like. If the perceptions that people have about occupations have no validity, then interest inventories would also have little or no validity.

* The members of a vocation have similar personalities and similar histories of personal development.

* Because people in a vocational group have similar personalities, they will respond to many situations and problems in similar ways, and they will create characteristic environments.

* Vocational satisfaction, stability, and achievement depend on the congruence between one's personality and the environment in which one works.

Following are descriptions of the personality types and the occupational environments which form the framework of Holland's (1973; 1985) theory.
Table 2.1 Holland's Modal Personal Styles and Occupational Environments

<table>
<thead>
<tr>
<th>PERSONAL STYLES</th>
<th>THEMES</th>
<th>OCCUPATIONAL ENVIRONMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggressive, prefers concrete vs. abstract</td>
<td>Realistic</td>
<td>Skilled trades such as plumber, electrician, and machine operator; technician skills such as</td>
</tr>
<tr>
<td>work tasks, basically less sociable, poor</td>
<td></td>
<td>airplane mechanic, photographer, draftsperson, and some service occupations</td>
</tr>
<tr>
<td>interpersonal interactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual, abstract, analytical,</td>
<td>Investigative</td>
<td>Scientific such as chemist, physicist, and mathematician; technician such as laboratory</td>
</tr>
<tr>
<td>independent, sometimes radical and</td>
<td></td>
<td>technician, computer programmer, and electronics worker</td>
</tr>
<tr>
<td>task-oriented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imaginative, values aesthetics, prefers</td>
<td>Artistic</td>
<td>Artistic such as sculptor, artist, and designer; musical such as music teacher, orchestra</td>
</tr>
<tr>
<td>self-expression through the arts, rather</td>
<td></td>
<td>leader, and musician; literary such as editor, writer and critic</td>
</tr>
<tr>
<td>independent and extroverted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefers social interaction, social</td>
<td>Social</td>
<td>Educational such as teacher, educational administrator, and college professor; social</td>
</tr>
<tr>
<td>presence, concerned with social problems,</td>
<td></td>
<td>welfare such as social worker, sociologist, rehabilitation counselor and professional</td>
</tr>
<tr>
<td>religious, community-service-oriented, and</td>
<td></td>
<td>nurse</td>
</tr>
<tr>
<td>interested in educational activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extroverted, aggressive, adventurous,</td>
<td>Enterprising</td>
<td>Managerial such as personnel production, and sales manager; various sales positions, such</td>
</tr>
<tr>
<td>prefers leadership roles, dominant,</td>
<td></td>
<td>as life insurance, real estate, and car salesperson</td>
</tr>
<tr>
<td>persuasive and makes use of good verbal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical, well-controlled, sociable, rather</td>
<td>Conventional</td>
<td>Office and clerical worker such as timekeeper, file clerk, tellor, accountant, keypunch</td>
</tr>
<tr>
<td>conservative, prefers structured tasks and</td>
<td></td>
<td>operator, secretary, bookkeeper, receptionist, and credit manager</td>
</tr>
<tr>
<td>prefers conformity sanctioned by society</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Zunker, 1994)

2.3.2.2 Roe's Theory

Early relations within the family and their subsequent effects on career direction have been the main focus of Ann Roe's work. Her theory proposes that combinations of early parent-child relations, environmental experiences and genetic features determine the development of a need structure. People learn to satisfy these developed needs primarily through interactions with people, or through activities that do not involve people. Occupational choice thus primarily involves choosing occupations that are person-oriented or non-person-oriented (Jacobs et al., 1988; Osipow, 1983 & Zunker, 1994).
According to Roe (in Zunker, 1994) examples of person-oriented occupations are: service (concerned with service to other people); business contact (person-to-person contact, primarily in sales); managerial (management in business, industry and government); arts and entertainment (performing in creative arts). Examples of non-person-oriented jobs are in the arenas of: technology (production, maintenance and transportation); the outdoors (agriculture, forestry, mining, etc.) and science (scientific theory and application).

Zunker (1994) states that Roe modified her theory after several studies refuted her claim that different parent-child interactions result in different vocational choices. She currently takes the position that the early orientation of an individual is related to later major decisions (particularly in occupational choice) and that other variables, not accounted for in her theory, are also important factors.

2.3.3 DEVELOPMENTAL APPROACH

According to Langley (1990) this approach emphasizes that "career development is a lifelong process during which the individual must successfully master various developmental tasks during sequential life stages, before he can proceed to the next life stage" (p. 2). The theories of Ginzberg and associates, and Super will be discussed.

2.3.3.1 Ginzberg, Ginsburg, Axelrod and Herma

This team of an economist, a psychiatrist, a sociologist, and a psychologist were responsible for this theory. Accordingly the individual moves through a series of related stages. The process of occupational choice, rather than a once-off decision,
is central to this theory. Values, environmental realities, psychological attributes and educational opportunities and achievements all affect this process. The authors of the theory see movement as largely irreversible - one cannot go back and take a different option. A compromise between desires and reality enters into occupational choice and one has to give up options in order to attain a desired goal. It may not be possible to utilise one's abilities or realise one's goals to the fullest extent (Osipow, 1983 & Tolbert, 1980).

In this theory, three phases during which career-choice development occur, are identified. According to Tolbert (1980), little attention is given to periods earlier than age eleven, because this age is identified as the point in the individual's life when he or she first realizes that he or she will eventually have to work. Following are the stages:

1. **Fantasy** (childhood, before age eleven): Needs and impulses are translated into occupational choices. Children feel that they can do whatever they want to. Reality, abilities and potentials and the time perspective, which are very important ingredients in the vocational choice process, are ignored.

2. **Tentative** (early adolescence, ages 11 - 17): Interests, abilities and values are used in making choices. Choices are tentative because reality factors are not adequately considered.

Substages of the tentative period are:

- **Interest substage** (about ages eleven to twelve):
Interest is the primary basis for choice, but abilities are seen as necessary. There is recognition of a need to identify a career direction. Choices often reflect a strong identification with the father.

**Capacity substage** (about ages thirteen to fourteen):

Capacities are considered in planning, but knowledge of them is incomplete, so choices are tentative. Abilities to do well in areas of interest are evaluated and there is a decrease in father identification and an increase in identification with other more distant models.

**Values substage** (about ages fifteen to sixteen):

Values enter the choice process, dominating interests and capacities.

**Transition substage** (about age seventeen)

Factors listed previously are joined and used in choosing. Reality factors are not yet appreciably involved and plans are still somewhat tentative. The individual realises that current decisions will affect his or her future.

3. **Realistic** (middle adolescence, ages 17 to young adult):

Choices are made during this period. Compromises are made between reality factors (job requirements or educational opportunities) and personal factors.

Substages of the realistic period are:

**Exploration:** Opportunities are investigated for virtually the last time and options are checked out. Due to interests which are still in a changing phase, general indecisiveness continues. The principal task is typically the selection of a path to follow from among two or three strongly held interests.
**Crystallization:** The individual makes a choice, where compromise is an important factor.

**Specification:** The individual becomes quite specific and takes steps to implement the decision. He/she elaborates upon the choice made by selecting a specific job or graduate school sub-specialty.  
(Tolbert, 1980 & Zunker, 1994).

Due to criticism raised concerning the theory, Ginzberg later modified his theory to state that:

1. Instead of a more or less final choice in the early or middle twenties, the choice process is coextensive with a person's working life and he or she may open the issue at any time.

2. The process of vocational choice and development is lifelong and open-ended.

3. Irreversibility is no longer considered valid.

4. Optimization replaces compromise. To find the most suitable job is a continuing process.

5. Constraints need to be given considerable weight. These constraints include: low-income family situation, parental attitudes and values, inadequacies of the educational institution, including its failure to keep up with changing opportunities for women, and ineffective linkages between schools and jobs, community institutions, and other institutions.

6. The opportunity structure of the world of work is given more weight, as is the importance of the individual's perception of opportunities that have in the past been closed to him or her.
7. Value orientation is now given more weight and is considered to play a major role in the individual's search for satisfaction. (Osipow, 1983 & Tolbert, 1980).

Ginzberg and associates now postulate that career choice is a process that remains open for as long as the individual makes and is expected to make decisions about work and career.

2.3.3.2 Super

Super is often referred to as the father of career development. According to Osipow (1983), he appeared to be under two strong influences, namely, the self-concept theory of Carl Rogers and the writings in developmental psychology by Charlotte Buehler.

Super's theory is that of career development rather than vocational choice. It is based on the idea that a person's self-concept influences their vocational choice. Although the vocational self-concept is only a part of the total self-concept, it is the driving force that establishes a career pattern one will follow throughout life. Thus, individuals implement their self-concepts into careers which will provide the most efficient means of self-expression. Research has indicated that the vocational self-concept develops through physical and mental growth, observations of work, identification with working adults, general environment and general experiences. Ultimately, differences and similarities between self and others are assimilated (Zunker, 1981 & 1994).
Super (1957; 1980 & 1983) regards career development as a lifelong process occurring through defined developmental periods and the self-concept is being shaped as each phase of life exerts its influence on human behaviour. This process starts during childhood and proceeds until after retirement. Another important element in making a vocational choice, according to Super (1957 & 1980) is vocational maturity. He regards this as the ability of a person to acquire skills for the successful completion of the appropriate tasks at each level.

Super made ten propositions which form the basic rationale for his theory:

1. "People differ in their abilities, interests and personalities.
2. They are qualified, by virtue of these circumstances, each for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests and personality traits, with tolerances wide enough, however, to allow some individual variation in each occupation.
4. Vocational preferences and competencies, and situations in which people live and work, and hence their self-concepts, change with time and experience, making choice and adjustment a continuous process.
5. This process may be summed up in a series of life stages, characterised as those of growth, exploration, establishment, maintenance and decline, and these stages may in turn be subdivided into fantasy, tentative and realistic phases of the exploratory stage, and trial and stable phases, of the establishment stage.
6. The nature of the career pattern is determined by the individual's parental socio-economic level, mental ability, and personality characteristics and by the opportunities to which he/she is exposed.

7. Development through the life stages can be guided partly by facilitating the process of maturation of abilities and interests, and, partly by aiding in reality testing, and in the development of the self-concept.

8. The process of vocational development is essentially that of developing and implementing a self-concept; it is a compromise process in which the self-concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluation of the extent to which the results of role-playing meet with the approval of superiors and fellows.

9. The process of compromise between individual and social factors, between self-concept and reality, is one of role-playing, whether the role is played in fantasy, in the counselling interview, or in real life activities such as school classes, clubs, part-time work, and entry jobs.

10. Work-satisfaction and life-satisfaction depend upon the extent to which the individual finds adequate outlets for his abilities, interests, values and personality traits; they depend upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which his growth and exploratory experiences have led him to consider congenial and appropriate" (Tolbert, 1980, pp. 41-42).
Following are the five stages in Super's developmental theory:

1. **Growth stage** (birth to age fourteen):
   
   Self-concept develops through identification with key figures in family and school.

   Substages of the Growth stage are:
   
   **Fantasy substage** (4-10):
   
   Needs are dominant and role-playing is important.

   **Interest substage** (11-12):
   
   Likes are major determinants of goals and activities.

   **Capacity substage** (13-14):
   
   Abilities are given more weight and job training requirements are considered.

2. **Exploration stage** (ages fifteen to twenty-four):
   
   Self-examination, role try-out and occupational exploration in school, leisure activities and part-time work.

   Substages of the Exploration stage are:
   
   **Tentative substage** (15-17):
   
   Needs, interests, values, opportunities, etc. are considered and tentative choices are made and tried out.

   **Transition substage** (18-20):
   
   Reality factors are given more importance as people enter the world of work, training, etc.
Trial substage (22-24):
A seemingly appropriate choice is made, a job is obtained and tried out.

3. Establishment stage (ages twenty five to forty-four):
An appropriate or suitable work field is found and an effort is made to "earn a permanent place in it." There may be some trial early in this period, accompanied by some shifting.

Substages of the Establishment stage are:

Trial substage (25-30):
One or two changes may be made before a suitable occupation is found.

Stabilisation substage (31-44):
The career pattern becomes clear and efforts are made to stabilize it and develop a secure place in the world of work.

4. Maintenance stage (ages forty-five to sixty four):
A place has been made in the world of work and efforts are now directed at building it. Little new ground is broken and there is continuation along established lines.

5. Decline stage (age sixty-five on):
As physical or mental powers decline, work activity changes and eventually ceases. New roles are developed and retirement may come after seventy, but there is variation from person to person.

2.3.4 SITUATIONAL APPROACH

According to Langley (1990) and Osipow (1983) the situational approach stresses the importance of social circumstances that can influence the career development of an individual. A variety of factors beyond the control of an individual can influence his/her career development. Technological advancement, the economic situation and political circumstances can all have a major influence on the availability of jobs in a country and career development in general (Pietrafesa and Splete, 1975). Various authors and researchers (Osipow, 1983; Poole and Cooney, 1985; Stead, 1996; Watkins, 1987 & Watson, 1984) identify the following as the major social factors that have an impact on career development:

1. socio-economic status
2. rural vs. urban areas
3. role-models
4. education
5. culture
6. family.

Although there are many situational factors which could affect the career development of individuals, Van Staden (1992) states that there is still no definite theory developed around this approach, although many different concepts are used to describe it.

The major conclusion that one can draw from this section, is that there is a lack of consensus amongst theorists regarding career development. In his theory of career development, Holland (1973 & 1985) sees career choice as reflective of a person's
personality and he identified six personality types with six corresponding environments. Roe (1956) tries to make explicit the relationship between genetic factors and early childhood experiences, on the one hand, and vocational behaviour on the other. According to Ginzberg's theory, the individual moves through a series of related stages (Tolbert, 1980). Initially he saw movement as largely irreversible, but due to criticism he modified this and later stated that the process of career choice and development remains open for as long as people make and are expected to make decisions about work and career. Super (1957) sees career development as a process based on the idea that a person's self-concept influences their vocational choice. The situational approach highlights a variety of social factors, beyond the control of the individual, that influence career development.

Although there is a lack of agreement amongst theorists regarding career development, they do agree that this is a lifelong process during which people have to make an occupational choice or choices. An important element in making a choice or choices, is the quality of the choices that people make. Career maturity is the concept that deals with the quality of choices that people make and it will be discussed in the section following.

2.4 CAREER MATURITY
In the previous section career development was defined as a lifelong process with the result being an occupational choice or various occupational choices that people make until they are no longer part of the economically active population. For people to make these occupational choices there are certain developmental capabilities or tasks that they have to perform at various stages of this process (Reid-Van Niekerk,
1990 & Super, 1984). Unfortunately not all people have developed to such an extent that they are able to master these developmental capabilities or tasks and according to Osipow (1983) career maturity allows us to assess the extent to which people have developed with respect to career-related issues.

As there are various definitions for career development, we also find various definitions for career maturity. Super (1980 & 1984) defines career maturity as the ability of a person to acquire skills to be able to master the career development tasks appropriate to his or her specific stage of life.

According to Jacobs et al. (1988) career maturity implies:

1. a realisation of the significance of own existence
2. ability to self-judgement
3. independent decision-making
4. the preservation of a responsible life and work approach
5. the increase of self and occupational knowledge and self-perception and
6. acquiring and establishing occupational competencies and skills.

Reid-Van Niekerk and Van Niekerk (1990) define career maturity as "the readiness of an individual to learn certain general and specific developmental capabilities or tasks, so that he may at certain critical points in his life, be mature enough to arrive at meaningful scholastic and career choices" (p. 1).

Phillips et al. (1983) describe the career mature person as someone who is oriented towards planning, accepts responsibility for choices, is aware and makes use of
available resources in planning, has specific information about preferred occupations and demonstrates competence in decision-making.

Langley (1990), on the other hand, sees the work of Super (1984), Crites (1978) and Westbrook (1975 & 1985) as the most important theoretical contributions to career maturity. An integrated framework of these models presents five steps in the career development process. These steps need to be taken at each stage of life in order to master the appropriate tasks successfully. The steps are as follows:

1. Obtaining self-information
2. Learning decision-making skills
3. Gathering career information
4. Integrating self-information and career information
5. Career planning.

From the above-mentioned definitions one can thus infer that career maturity refers to the ability of people:

1. to learn/acquire specific skills
2. to apply these skills at different stages of the career development process and
3. to experience meaningful choices at various stages of the career development process.

It is therefore to be expected that career-mature behaviour could be evaluated at each stage of the career development process and it will differ from one stage of career development to another. A person who is at the growth stage of Super's
developmental theory, for example, will be concerned with assessing personal interests and abilities, while a person who is at the maintenance stage will be concerned with ways to maintain career status.

From the discussion in this section, it can thus be implied that career maturity cannot be separated from career development and that career-mature individuals should be able to acquire and develop certain tasks or competencies to make mature choices at various stages of the career development process.

2.5 CONCLUSION

This chapter reviewed theories of career development and explored the relationship between career maturity and the process of career development. It was found that career maturity and career development are inseparable and, although different theories of career development were discussed, they all identified certain factors which influence the career development process and thus career maturity. The next chapter reviews the factors that affect career development and career maturity.
CHAPTER THREE

FACTORS INFLUENCING CAREER MATURITY

3.1 INTRODUCTION

The previous chapter reviewed various theories of career development and explained the position of career maturity on the continuum of career development. It also indicated that each one of the theories of career development identifies different factors which impact upon the career development process and thus influences the level of career maturity. This chapter will focus specifically on research into the factors influencing career development and career maturity.

3.2 FACTORS INFLUENCING CAREER DEVELOPMENT

A summary of some factors which influence career development, classified under the personality, the developmental and the situational approaches to career development, is presented in Table 3.1. As mentioned, these factors were identified from the discussion on career development theories in the previous chapter. Even though different factors are identified by the different theoretical approaches, there is consensus that the career development process is impacted upon by various factors, often beyond the control of individuals.
TABLE 3.1: Factors Influencing Career Development

<table>
<thead>
<tr>
<th>Personality Theories</th>
<th>Developmental Theories</th>
<th>Situational Theories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heredity (genetic factors)</td>
<td>Parental socio-economic level</td>
<td>Family and socio-economic status</td>
</tr>
<tr>
<td>Peers</td>
<td>Mental Ability</td>
<td>Rural vs urban areas</td>
</tr>
<tr>
<td>Parents and Social Class</td>
<td>Opportunities exposed to</td>
<td>Role models</td>
</tr>
<tr>
<td>Culture</td>
<td>Parental attitudes and values</td>
<td>Education</td>
</tr>
<tr>
<td>Childhood experiences</td>
<td>Inadequacies of educational institution</td>
<td>Culture</td>
</tr>
<tr>
<td>Physical environment</td>
<td>Identification with working adults</td>
<td>Technological development</td>
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<tr>
<td></td>
<td>Personality characteristics</td>
<td>Political factors</td>
</tr>
<tr>
<td></td>
<td>Self concept</td>
<td>Economic situation</td>
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<td></td>
<td>Individual &amp; social factors</td>
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</tr>
</tbody>
</table>

Although the above-mentioned factors are identified as factors generally impacting upon the career development of people, Coleman (1989) found that cross-cultural difference is also an important factor for consideration in career development. In her research, she identified barriers to career development which are experienced by multicultural and diverse population's (see Table 3.2). These factors are divided into internal and external barriers. Internal barriers relate to the self, whereas external barriers relate to the environment.

TABLE 3.2: Internal and External Barriers to Career Development

<table>
<thead>
<tr>
<th>Internal Barriers</th>
<th>External Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low self-esteem</td>
<td>Few role models</td>
</tr>
<tr>
<td>Attitudes, aspirations, expectations</td>
<td>Lack of mentors</td>
</tr>
<tr>
<td>Language</td>
<td>Stereotypes</td>
</tr>
<tr>
<td>Lack of confidence</td>
<td>Racism and discrimination</td>
</tr>
<tr>
<td>Locus of control</td>
<td>Family expectations</td>
</tr>
<tr>
<td>Fear of failure and/or success</td>
<td>Societal expectations</td>
</tr>
<tr>
<td>Level of career maturity</td>
<td>Socio-economic status</td>
</tr>
<tr>
<td>Inappropriate decision making skills</td>
<td>Inadequate educational preparation</td>
</tr>
<tr>
<td>Lack of marketable skills</td>
<td>Lack of career/vocational guidance</td>
</tr>
<tr>
<td>Lack of previous work experience</td>
<td>Ethnic background of counsellor</td>
</tr>
<tr>
<td>Lack of information</td>
<td>Conceptualization of work ethic</td>
</tr>
<tr>
<td></td>
<td>Peer pressure to adopt to a particular norm</td>
</tr>
</tbody>
</table>

(Coleman, 1989).
From the above it is thus clear that the career development process is impacted upon by various factors and these factors have an influence on the career maturity of individuals. To determine the impact of these factors on career development and career maturity, one needs to gather data for this purpose. To do this, it is important to move from the construct to the observation level (Kerlinger, 1992). For observational and data gathering purposes, it was decided to identify variables that adequately represent all the factors as identified in Tables 3.1 and 3.2. The literature study done in chapter two and previous studies on career development and career maturity (Henen, 1990; Watson, 1984 & Woolard, 1988), were used as guidelines for choosing the variables as identified in Table 3.3.

For research purposes, as far as this study is concerned, the variables personality characteristics, culture and language were excluded. The influence of personality characteristics as variable is excluded, because this study is more interested in the impact of social and environmental factors on career development and career maturity. The assumption is made, further more, that whatever differences there are in levels of career maturity, these are partly due to differences in personality characteristics for each participant in this study. The sample population selected for this research, was drawn from the same cultural background and language group and therefore culture and language were also excluded for research purposes.
### TABLE 3.3: Research Variables

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career maturity</td>
<td>Inappropriate decision-making skills</td>
</tr>
<tr>
<td></td>
<td>Lack of previous work experience</td>
</tr>
<tr>
<td></td>
<td>Lack of information</td>
</tr>
<tr>
<td></td>
<td>Lack of career and vocational guidance</td>
</tr>
<tr>
<td>Socio-economic status</td>
<td>Peer pressure/childhood experience</td>
</tr>
<tr>
<td></td>
<td>Parents and social class/family expectations</td>
</tr>
<tr>
<td></td>
<td>Role models and mentors</td>
</tr>
<tr>
<td></td>
<td>Physical environment</td>
</tr>
<tr>
<td></td>
<td>Opportunities exposed to</td>
</tr>
<tr>
<td></td>
<td>Parental attitudes and values</td>
</tr>
<tr>
<td></td>
<td>Identification with working adults</td>
</tr>
<tr>
<td></td>
<td>Economic, political and technological environment</td>
</tr>
<tr>
<td></td>
<td>Stereotypes</td>
</tr>
<tr>
<td></td>
<td>Conceptualisation of work ethic</td>
</tr>
<tr>
<td>Locus of control</td>
<td>Parental attitudes and values</td>
</tr>
<tr>
<td></td>
<td>Political</td>
</tr>
<tr>
<td></td>
<td>Childhood experiences</td>
</tr>
<tr>
<td></td>
<td>Physical environment</td>
</tr>
<tr>
<td></td>
<td>Attitudes and aspirations</td>
</tr>
<tr>
<td>Self esteem</td>
<td>Self concept</td>
</tr>
<tr>
<td></td>
<td>Low self esteem</td>
</tr>
<tr>
<td></td>
<td>Lack of confidence</td>
</tr>
<tr>
<td>Mental ability</td>
<td>Mental ability</td>
</tr>
<tr>
<td>Gender</td>
<td>Male/female</td>
</tr>
<tr>
<td>School</td>
<td>Inadequacies of educational system</td>
</tr>
<tr>
<td></td>
<td>Lack of marketable skills</td>
</tr>
<tr>
<td></td>
<td>Racism and discrimination</td>
</tr>
<tr>
<td></td>
<td>Inadequate educational preparation</td>
</tr>
<tr>
<td></td>
<td>Lack of career/vocational guidance</td>
</tr>
<tr>
<td>Residential area</td>
<td>Rural vs urban</td>
</tr>
<tr>
<td>Personality characteristics</td>
<td>Individual factors</td>
</tr>
<tr>
<td></td>
<td>Attitudes and aspirations</td>
</tr>
<tr>
<td></td>
<td>Heredity/inherited aptitudes</td>
</tr>
<tr>
<td>Culture</td>
<td>Culture</td>
</tr>
<tr>
<td>Language</td>
<td>Language</td>
</tr>
</tbody>
</table>
3.3 VARIABLES AND RELEVANT RESEARCH

This section reviews research on specific variables, identified for the research: socio-economic status, locus of control, self esteem, mental ability, gender, school and area of residence.

3.3.1 SOCIO-ECONOMIC STATUS (SES)

Young and Friesen (1992) found that parents have a critical impact on the development of their children. It is even more so when one considers the career development of children. One of the major contributions of early career research by sociologists, was that it clearly demonstrated that socio-economic factors are primarily determinant of career choice (Watson, 1984). Although socio-economic status is recognised as an important career choice variable, it has been neglected in research focusing on individual factors. Where it has, however, been researched as a situational factor, middle-class groups are very often the focus of research (Ansell and Hansen, 1971 & Watson and Van Aarde, 1986).

Pietrafesa and Splete (1975) found that middle-class parents reject the idea of unskilled and semi-skilled occupations for their children, while Cosby and Picou (1973) found that upper socio-economic urban adolescents consistently had higher status career attainment than adolescents from lower social and rural backgrounds. Hannah and Kahn (1989) found that students choose occupations in prestige levels comparable to their own SES background, but high SES girls were more likely than low SES girls to choose male-dominated occupations from the Holland occupational environments. The occupations typically associated with these orientations are economist, engineer, doctor, advocate, politician, etc. These occupations are
normally associated with the upper and middle classes of SES groups. Smart (1989) also found that there is a tendency on the part of these people to attend higher quality, more selective undergraduate institutions.

It was also found that students from the upper socio-economic group are more career-mature than those from the lower socio-economic group (Karayanni, 1981; Watson and Van Aarde, 1986). Cloete (1980), on the other hand, found that the most serious disadvantage facing youth from the lower socio-economic groups, is the inability of the parents to assist their children with aspects like goal clarification and the general skills required in the vocational decision-making process. Job security is valued over self-fulfilment and generally vocational choices are responded to in terms of lower order needs. Swanson and Tokar (1991) investigated students' perceptions of barriers to career development and found current and future financial concerns as one of the major impediments to the choice of a career. This barrier is dependent upon socio-economic class, which in return determines a family's level of income.

Cloete (1980) cites research that regards the influence of family role-models, especially that of the father, as important in the development of a child's concept of work. Hackett, Esposito and O'Halloran (1989), however, researched the relationship of role-model influences on the career salience and educational and career plans of college women and found that male role-model influences were significantly, but negatively, related to women's choice of a non-traditional, or science-related college major. Their study strongly supports the importance of
female teachers and professors predicting both career salience and educational aspirations of college women.

Bowman and Tinsley (1991) found that black students, as a disadvantaged group, and especially those from lower SES backgrounds, may not know many people who have earned degrees and this indicates a lack of role-models.

3.3.2 LOCUS OF CONTROL

Locus of control (LOC) is the degree to which people believe that they are masters of their own fate (Robbins, 1993). According to Watson (1984), individuals with an internal LOC (Internals), feel that they control what happens to them, while individuals with an external LOC (Externals), see life as primarily determined by forces such as luck, chance or powerful others. Research shows that Internals consistently function in a more positive, effective and adaptive manner than externals (Gilmor, 1978).

Various researchers have found a relationship between LOC and career maturity. Super and Bowlsbey (1981) are of the opinion that a sense of autonomy or internal locus of control is essential to the planning, exploration and acquisition of career skills and information. Theorists also argue that internally controlled people show a greater career maturity (Gable, Thompson and Glanstein, 1976; Watson, 1984). Blustein (1989) found that individuals who have internalised goals and values, have more self-confidence and they follow an active approach to career decision-making and exploration. Locus of control is also positively related to such measures of career maturity as planning ahead for career options, career choice skills and

There seems to be a close link between locus of control and social circumstances. Watson (1984) cites research that found that individuals who are restricted by social circumstances and economic limitations have greater external LOC, while the opposite seems to be true of more advantaged individuals. It was also found that middle-class adolescents are more long-term in their future orientation and have greater internal LOC than their lower-class counterparts (Schmidt, Lamm and Trammsdorf, 1978). Individuals on lower socio-economic levels generally see their future as externally controlled (Tyler, 1977).

3.3.3 THE SELF-ESTEEM

According to Coopersmith (1986), people are not born with concerns of being good or bad, smart or stupid, lovable or unlovable. They develop these ideas, pictures of themselves, based largely on the way they are treated by the significant people, the parents, teachers, and peers, in their lives. Self-esteem is thus a set of attitudes and beliefs that a person brings with himself or herself when facing the world. It concerns how one feels about oneself.

Several theorists have postulated a relationship between self-concept and career development (Bordin and Kopplin, 1973; Erickson, 1963 & Super 1957), but for the purpose of this research, the focus is on self-esteem. Coleman (1989) found that persons with high levels of self-esteem have a sense of value and worth, they like themselves, they have confidence in themselves and they act accordingly. People
with low levels of self-esteem doubt their own worth, they see themselves as undesirable, they often feel depressed, anxious and unhappy and they have little faith or confidence in themselves. Super's (1983) theory and Munson (1992) found that individuals high in self-esteem have clearer, more certain career self-concepts and are thus better able to differentiate how well alternative careers would meet their needs, and abilities. Blustein (1989) found that people with a low self-esteem are less career mature than those with a positive self-esteem.

Although most researchers support the relationship between self-esteem and career development (Bartlett, 1971; Khan and Alvi, 1983 & Super, 1983) there is disagreement regarding cross-cultural evidence. Kishor (1981) found Fijian adolescents with high self-esteem more career mature, but Perez (1980) could not establish a similar relationship among Puerto Ricans. Reid-Van Niekerk and Van Niekerk (1990) found that differences in career maturity existed between Black, Coloured and White students. Black and Coloured students were found to have significantly lower career maturity scores than their white counterparts. This is attributed to the extent to which the different subgroups were exposed to the world of work and discrepancies in their educational background. The researchers, however, warn that generalisation is limited due to the fact that sampling selection was mainly done on a convenience basis.

3.3.4 MENTAL ABILITY

According to Crites (1971) only a few career choices are made on the basis of mental ability alone, but it is, nevertheless, an important variable in career development. It is useful for predicting overall career maturity (Crites, 1973).
Watson and Van Aarde (1986) cite research that produces mainly positive results when intelligence/mental ability is used as a variable in career maturity.

### 3.3.5 GENDER

There is no clarity in the literature regarding the career maturity of males and females. Watson and Van Aarde (1986) cite research that indicate that females are more career-mature than males. These findings have been supported in differing cultures, on different socio-economic levels and in different residential areas. Other research, however, has indicated greater career maturity in male adolescents (Achebe, 1982) or no differences in career maturity at all.

Solomon, Bishop and Bresser (1986) found that females adopting the traditional role of housewife, will not be able to strive for high occupational goals, because this is in direct competition with the role that she fulfils and it would influence her career development.

### 3.3.6 SCHOOL

School may often be an important influence on career choice and career maturity. Children who perform well are likely to be influenced toward higher education and professions, and the school's norms, and contact with children from different social classes, can foster values that contribute to aspirations that are higher than those of the family (Watkins, 1987).
In their research on the career maturity of White, Coloured and Black first year university student, Reid-Van Niekerk and Van Niekerk (1990) found that the discrepancies could be attributed to the subject's educational background.

3.3.7 AREA OF RESIDENCE

Area of residence together with socio-economic status, provide the setting in which an individual becomes familiar with the world of work and the opportunities it offers (Watson, 1984). As far back as 1962, Lipsett (1962) found that children growing up in rural areas have less knowledge and fewer options when it comes to career choice than children in urban areas.

Gottfredson (1981) suggests that people attend to readily available sources of information first and often fail to consult more useful, but more distant sources. People's career information is thus strongly influenced by their immediate social setting. According to Cloete (1980) urban areas prove advantageous for career development when people belong to the higher socio-economic levels.

The main advantage that urban students normally have is the exposure to a greater variety of occupational role-models (Currie, Hotchkiss, Picou and Stahura, 1978). Cloete (1980) doubts whether the urban black student in South Africa shares this advantage with his white counterpart. He is of the opinion that the average black student can rather be regarded as sharing the disadvantages of rural students. This is also true of disadvantaged communities in South Africa generally.
Achebe (1982) found that students in urban schools were more mature in their vocational attitude, job knowledge and planning competence than those in rural schools.

3.4 CONCLUSION

This chapter presented a short overview of research relevant to this study. Although extensive research has been done in the areas of career development and career maturity, very little has been done in South Africa. The studies done in this country are very often on selected White samples and only a sparsity of research is available on the career development of Blacks and Coloureds in particular. The next chapter will thus focus on the statement of the research problem and hypotheses.
CHAPTER FOUR

THE STATEMENT OF THE PROBLEM AND HYPOTHESES

4.1 STATEMENT OF THE PROBLEM

The purpose of this study is to research the factors that may influence career maturity of matriculants in schools in the Stellenbosch area. It is evident from the theories discussed in chapters' two and three, that career maturity is influenced by various factors. With reference to the present study, and based on personal observation, it seems evident that factors which are mainly of a social nature also have an influence on the development of career maturity. These factors need to be properly identified, so that appropriate interventions could be applied.

Reid-Van Niekerk and Van Niekerk (1990) found that both Coloured and Black first year university students have significantly lower career maturity scores than their White counterparts and these point to the need for career development interventions. However, they warn that the interventions should be aimed at the specific needs of the different population groups. This viewpoint is supported by Luzzo (1992) who points to the fact that career development issues are not consistent across cultural and ethnic groups and that career counselling interventions require an awareness of these differences and an understanding of their role in career development. It is with this in mind that a survey (see chapters two and three) was done on the factors that influence the career maturity of members of this sample population.

As part of the change process in South African society, affirmative action is currently at the order of the day in most South African organisations. The problem, however,
is that affirmative action interventions are aimed at those people who are entering the labour market and not so much at grass roots level (eg. pupils in their final school year), where people still have to make career decisions. It is thus not surprising that disadvantaged groups in South Africa are still under-represented in the engineering, science, technical, accounting and managerial fields. One of the major reasons for this is that the career development needs of disadvantaged communities in this country have not been thoroughly researched and it is thus difficult to apply career development interventions at grass roots level.

Research done on the particular population investigated in this study is scarce. Only one major study was done by Watson (1984) in the Port Elizabeth area and another minor study by Reid-Van Niekerk and Van Niekerk (1990), where Coloured, Black and White first year students were compared regarding their career maturity. Coleman (1989) supports the view about the scarcity of research on diverse populations, and research is cited which highlights the career development needs of diverse populations and the limited amount of research done on these issues.

It is thus evident that there is a need to investigate the career development needs of Coloured pupils, to determine where to introduce career development interventions. Matriculants were chosen for the purpose of this study, because they are at a stage in the career development process where specific career decisions need to be made. It is, however, envisaged that a thorough research into the specific career development needs of the mentioned matriculants, could result in the introduction of appropriate career development interventions at a lower level of the secondary school phase.
4.1.1 RESEARCH PROBLEM

Based on the theoretical discussions in the previous chapters and the above, the following research problem was formulated:

People from disadvantaged communities in South Africa, and particularly those from the Coloured community, seem to show an inability to make well-informed career decisions in present-day South Africa. It appears, furthermore, that various factors of a social nature contribute to this inability to make an informed career choice.

4.2 RESEARCH HYPOTHESES

Following the above-mentioned research problem, the following research hypothesis was identified:

There is no significant correlation between the level of career maturity of matriculants and various social factors which impact upon them.

This research hypothesis, lends itself to the formulation of a series of hypotheses based on the research variables identified in chapter three. The dependent variable, for the purpose of this research, is the level of career maturity, which can also be divided into the following sub-scales: obtaining of self-information, learning decision-making skills, gathering career information, integrating self-information and career information and career planning. The independent variables are socio-economic status, locus of control, self-esteem, mental ability, gender, school and area of residence (Table 4.1).
TABLE 4.1: Dependent and Independent Variables

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of career maturity</td>
<td>Socio-economic status</td>
</tr>
<tr>
<td>Obtaining self-information</td>
<td>Locus of control</td>
</tr>
<tr>
<td>Learning decision-making skills</td>
<td>Self-esteem</td>
</tr>
<tr>
<td>Gathering career information</td>
<td>Mental ability</td>
</tr>
<tr>
<td>Integrating self- and career information</td>
<td>Gender</td>
</tr>
<tr>
<td>Career planning</td>
<td>School</td>
</tr>
<tr>
<td></td>
<td>Residential area</td>
</tr>
</tbody>
</table>

The above-mentioned research hypothesis can thus be subdivided into the following hypotheses:

**Hypothesis 1**

There is no significant correlation between the level of career maturity and the socio-economic status of matriculants.

**Hypothesis 2**

There is no significant correlation between the obtaining of self-information task of career maturity and the socio-economic status of matriculants.

**Hypothesis 3**

There is no significant correlation between the learning of decision-making skills task of career maturity and the socio-economic status of matriculants.

**Hypothesis 4**

There is no significant correlation between the gathering of career information task of career maturity and the socio-economic status of matriculants.
Hypothesis 5
There is no significant correlation between the integration of self-information and career information task of career maturity and the socio-economic status of matriculants.

Hypothesis 6
There is no significant correlation between the career planning task of career maturity and the socio-economic status of matriculants.

Hypothesis 7
There is no significant correlation between the level of career maturity and the locus of control of matriculants.

Hypothesis 8
There is no significant correlation between the obtaining of self-information task of career maturity and the locus of control of matriculants.

Hypothesis 9
There is no significant correlation between the learning of decision-making skills task of career maturity and the locus of control of matriculants.

Hypothesis 10
There is no significant correlation between the gathering of career information task of career maturity and the locus of control of matriculants.
Hypothesis 11
There is no significant correlation between the integration of self-information and career information task of career maturity and the locus of control of matriculants.

Hypothesis 12
There is no significant correlation between the career planning task of career maturity and the locus of control of matriculants.

Hypothesis 13
There is no significant correlation between the level of career maturity and the level of self-esteem of matriculants.

Hypothesis 14
There is no significant correlation between the obtaining of self-information task of career maturity and the level of self-esteem of matriculants.

Hypothesis 15
There is no significant correlation between the learning of decision-making skills task of career maturity and the level of self-esteem of matriculants.

Hypothesis 16
There is no significant correlation between the gathering of career information task of career maturity and the level of self-esteem of matriculants.
Hypothesis 17
There is no significant correlation between the integration of self-information and career information task of career maturity and the level of self-esteem of matriculants.

Hypothesis 18
There is no significant correlation between the career planning task of career maturity and the level of self-esteem of matriculants.

Hypothesis 19
There is no significant correlation between the level of career maturity and the mental ability of matriculants.

Hypothesis 20
There is no significant correlation between the obtaining of self-information task of career maturity and the mental ability of matriculants.

Hypothesis 21
There is no significant correlation between the learning of decision-making skills task of career maturity and the mental ability of matriculants.

Hypothesis 22
There is no significant correlation between the gathering of career information task of career maturity and the mental ability of matriculants.
Hypothesis 23
There is no significant correlation between the integration of self-information and career information task of career maturity and the mental ability of matriculants.

Hypothesis 24
There is no significant correlation between the career planning task of career maturity and the mental ability of matriculants.

Hypothesis 25
There is no significant correlation between the level of career maturity and gender of matriculants.

Hypothesis 26
There is no significant correlation between the obtaining of self-information task of career maturity and the gender of matriculants.

Hypothesis 27
There is no significant correlation between the learning of decision-making skills task of career maturity and the gender of matriculants.

Hypothesis 28
There is no significant correlation between the gathering of career information task of career maturity and the gender of matriculants.
Hypothesis 29
There is no significant correlation between the integration of self-information and career information task of career maturity and the gender of matriculants.

Hypothesis 30
There is no significant correlation between the career planning task of career maturity and the gender of matriculants.

Hypothesis 31
There is no significant correlation between the level of career maturity of matriculants and the school that they attend.

Hypothesis 32
There is no significant correlation between the obtaining of self-information task of career maturity for matriculants and the school they attend.

Hypothesis 33
There is no significant correlation between the learning of decision-making skills task of career maturity for matriculants and the school they attend.

Hypothesis 34
There is no significant correlation between the gathering of career information task of career maturity for matriculants and the school they attend.
Hypothesis 35
There is no significant correlation between the integration of self-information and career information task of career maturity for matriculants and the school they attend.

Hypothesis 36
There is no significant correlation between the career planning task of career maturity for matriculants and the school they attend.

Hypothesis 37
There is no significant correlation between the career maturity of matriculants and their residential area.

Hypothesis 38
There is no significant correlation between the obtaining of self-information task of career maturity for matriculants and their residential area.

Hypothesis 39
There is no significant correlation between the learning of decision-making skills task of career maturity for matriculants and their residential area.

Hypothesis 40
There is no significant correlation between the gathering of career information task of career maturity for matriculants and their residential area.
Hypothesis 41
There is no significant correlation between the integration of self-information and career information task of career maturity for matriculants and their residential area.

Hypothesis 42
There is no significant correlation between the career planning task of career maturity for matriculants and their residential area.

4.3 CONCLUSION
This chapter presented an overview of the research problem and the various research hypotheses to be investigated. It emphasises the importance of properly identifying the factors which impact upon career development and career maturity, so that appropriate interventions could be applied. It further highlights the fact that research done on the group investigated in this study is scarce and that the results of this study could be used to assist with the introduction of appropriate career development interventions at the lower level of the secondary school phase.
CHAPTER FIVE
RESEARCH METHODOLOGY

5.1 INTRODUCTION
This chapter focuses on the research methodology followed in this study and explains the particular population and representative samples selected for this study. Apart from this, the measuring instruments used, and the procedures to collect and score data, are also discussed. The chapter concludes with a discussion of the selected statistical methodology used for the analysis of the data.

5.2 SAMPLE POPULATION
The measuring instruments were administered to 303 matriculants from three senior secondary schools in the Stellenbosch area. The particular schools that were selected, are mostly attended by pupils from previously disadvantaged communities. To compare the possible effects of social and environmental factors on career maturity for different schools, one school each from a typical township environment, a typical middle class environment, and a typical rural/farming environment was selected. The three schools selected, were regarded as representative of the mentioned environments and each one of the environments were further sub-divided into the areas of residence as identified by the various municipalities. For the purposes of the research, the names of the schools and the areas of residence are treated as confidential. The schools, the socio-economic status of the school’s region and the areas of residence are presented in Table 5.1. All instruments were administered on the same day and testing took place during February and March 1995.
TABLE 5.1: School, Socio-economic Status of its Region and Area of Residence

<table>
<thead>
<tr>
<th>School</th>
<th>Socio-economic status of region</th>
<th>Area of residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>Rural/farming area</td>
<td>Area B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Area F</td>
</tr>
<tr>
<td>School B</td>
<td>Township area</td>
<td>Area C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Area G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Area H</td>
</tr>
<tr>
<td>School C</td>
<td>Middle class area</td>
<td>Area D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Area E</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Area A</td>
</tr>
</tbody>
</table>

5.3 MEASURING INSTRUMENTS

Six measuring instruments were used, namely the Career Development Questionnaire, Coopersmith’s Self-esteem Inventory, Rotter’s Internal-External Scale, the Mental Alertness Test of the Potential Index Battery (PIB), the Socio-economic Deprivation Questionnaire and a Biographical Questionnaire.

5.3.1 THE CAREER DEVELOPMENT QUESTIONNAIRE (CDQ)

According to Langley (1990) the Career Development Questionnaire (CDQ) was developed after Super’s Career Development Inventory (CDI) was found to be too long and sound criticism was found on the theoretical basis of Crites’ Career Maturity inventory (CMI) (Super 1987). It was then decided to develop a South African instrument based on the integration of existing theories of career maturity. Two pilot studies involving first-year university students were conducted during 1985, and one, involving Standard 7 and 9 pupils from all the population groups, was conducted in 1987. In 1988 the CDQ was administered to a national sample of 5 350 high school
pupils in Standard 8 and Standard 10, and White (1986; 1989) and Langley (1989) also used it in various postgraduate studies.

The results of the pilot studies and various other studies (White, 1986; 1989 & Langley, 1989) revealed that the CDQ had acceptable psychometric properties for all the major language and cultural groups in South Africa. The reliability coefficients of the CDQ were higher than 0,80 for all the subsamples. Although a reliability coefficient higher than 0,80 for a total instrument is acceptable, coefficients lower than 0,70 for the individual scales were interpreted with caution. It was therefore decided to expand the short version of the CDQ to 20 items per subscale with a total of 100 items, so that higher reliability coefficients could be obtained and that interpretations could be based on the scores of individual scales as well.

A longer version of the CDQ was then developed during 1989 (Langley, 1990) with the purpose of assessing the readiness of an individual to make an appropriate career choice. The first 20 items contributed Scale 1 (Self-information), items 21 to 40 Scale 2 (Decision-making), items 41 to 60 Scale 3 (Career information), items 61 to 80 Scale 4 (Matching of self-information with career information), and items 81 to 100 Scale 5 (Career planning). The psychometric properties of the long version are satisfactory, and with reliability coefficients higher than 0,90 for the total score, and higher than 0,70 for the subscales, and evidence of the test's validity (Langley, 1990), the CDQ is suitable to focus on specific problem areas in career development.
The CDQ is administered in 20 to 30 minutes and is suitable for high school pupils and students in Western, African or Asian-oriented cultures. It can be administered individually, as well as in groups. Scoring can either be done by hand or computer and for this study, the CDQ was hand-scored.

5.3.2 ROTTER’s INTERNAL-EXTERNAL SCALE (I-E Scale)

Rotter's I-E Scale was used to measure locus of control. This scale is the result of various attempts to develop a measure of Internal-External Control since 1957, and Rotter (1966) provides a full description of the scale and a review of its development, reliability and validity.

The scale has a forced-choice format in its original form and contains 29 items, of which 6 are filler items, intended to make the purpose of the test more ambiguous (Rotter, 1966). According to Watson (1984) a subject's total I-E score is usually the number of items responded to in the external direction. Collins (1974), however, altered the forced-choice format of the original scale to 46 Likert items and found both formats to be empirically comparable.

Riordan (1978) used an Afrikaans translation of the Collin's format of the scale on various South African ethnic groups. The ethnic groups included a Coloured sample (n=413) of both sexes, with an age range of 15 to 21, and representative of all socio-economic levels. Results of a factor analysis of the I-E Scale supported the multi-dimensionality of the scale when responded to by diverse South African populations, even though Rotter (1966) failed to find evidence for the existence of subscales or dimensions within the scale. According to Watson (1984) the issue of
The unidimensionality/multidimensionality of the I-E Scale is still unresolved, but Riordan (1978) concludes that the I-E Scale can be meaningfully and usefully employed with South African populations. Watson (1984) successfully used this scale to measure the possible effects of locus of control on the career development of Coloured adolescents.

The Collin's format of the I-E Scale, in both Afrikaans and English, and in the Likert format of "Agree-Disagree", was used in the present study. The Afrikaans items appear first, because the testees are Afrikaans-speaking. The I-E Scale appears in both languages in Appendix 1.

5.3.3 SELF-ESTEEM INVENTORY (SEI)

The SEI was developed in conjunction with an extensive study of self-esteem in children (Coopersmith, 1967). It is designed to measure evaluative attitudes toward the self in social, academic, family, and personal areas of experience. There are three forms of the SEI (Coopersmith, 1986) and they are used for both males and females and for all ethnic groups and many special populations (e.g., the learning disabled).

5.3.3.1 The School Form

This form is used with students from eight years to fifteen years of age and consists of fifty-eight items. Fifty of the items cover self-esteem and eight items constitute the Lie Scale, a measure of a person's defensiveness or test wiseness. The self-esteem items yield a total score, which could also be separated for scores on four subscales, namely General Self, Social Self-Peers, Home-Parents, and
School-Academic. The subscales allow for variances in perceptions of self-esteem in different areas of experience.

5.3.3.2 The School Short Form
This experimental form is used with the same age group as the School Form. It was previously a separate booklet but the items are now included in the School Form (Items 1 to 25). The School Short Form does not include the Lie Scale items and does not make provision for subscale scores.

5.3.3.3 The Adult Form
This form, which was also used in this study (Appendix 3), is suitable for persons aged sixteen and above. It consists of twenty-five items adapted from the School Short Form. The correlation of total scores on the School Short Form and the Adult Form exceeds 0.80 for three samples of high school and college students (N=647) (Coopersmith, 1986).

The SEI may be administered to groups or individuals. During administration, introductory or explanatory remarks are kept to a minimum. The words self-esteem, self-concept, and self-evaluation are not used and help to prevent biased responses, which may invalidate the inventory. The Adult Form of the inventory is usually self-administered. However, if there is any question as to a person's ability to complete the inventory on his or her own, the procedures described for the School Form could be used.
The SEI is scored in a few minutes by using scoring keys. If a scoring key is not available, the general rules listed below could be followed when scoring the self-esteem items:

i) Score negative items correct (for example, "I get upset easily at home") if they have been answered "unlike me."

ii) Score positive items correct (for example, "I'm pretty sure of myself") if they have been answered "like me."

For the School Short Form and the Adult Form, the raw score is multiplied by four and this results in a maximum possible Total Self Score of 100 so that results of the different forms are readily comparable.

There are no exact criteria for high, medium, and low levels of self-esteem. According to Coopersmith (1986) they should and will vary with the characteristics of the sample, the distribution of scores, and theoretical and clinical considerations. Employing position in the group as an index of relative self-appraisal, the upper quartile generally can be considered indicative of high self-esteem, the lower quartile generally as indicative of low self-esteem, and the interquartile range generally as indicative of medium self-esteem.

Various researchers (Spatz and Johnson, 1973; Kimball, 1973) have used this instrument and report reliability coefficients of above 0.80 for the long form. Data for the short form is insufficient, but reliability coefficients would probably be somewhat lower, because of the shorter duration. In one study Bedeian, Geagud and Zmud
(1977) reported Kuder Richardson 20s of 0.74 for males and 0.71 for females. Various studies on construct validity (Kokenes, 1974, 1978), concurrent validity (Simon and Simon, 1975), predictive validity (Donaldson in Coopersmith, 1986) and factor analysis (Kokenes, 1978) have proved that this instrument is valid and that it measures what it is supposed to measure.

5.3.4 MENTAL ALERTNESS (POTENTIAL INDEX BATTERY)

The PIB comprises a relatively large number of scales, each measuring a specific aspect of human potential. A total of 24 separate scales were eventually selected from those developed since 1984/1985 (Minnaar & Erasmus, 1994). The battery was developed to bring about a 'culture fair' test and one that serves the South African environment.

The PIB was repeatedly tested for reliability and validity from 1984 to 1993, and it was only towards March 1993, that it could be said, with sufficient research backing, that the PIB was a valid and reliable assessment battery (Minnaar & Erasmus, 1994).

For the purpose of this research, only the Mental Alertness Index was used. This index reflects the person's ability to recognise "deviations" and differences between seemingly related items and materials. This ability is usually associated with the capacity to classify objects correctly and is of special interest in clerical and administrative fields of work. It is, however, also strongly associated with general ability and intellectual "sharpness" of a person.
In the interpretation of this index, the following norms apply:

1 - Poor level of mental alertness; general ability probably poor.
2 - Fairly poor level of mental alertness; fairly poor level of general ability.
3 - Average level of general ability and mental alertness.
4 - Above average levels of mental alertness and general ability.
5 - Superior level of mental alertness and general ability.

5.3.5 SOCIO-ECONOMIC DEPRIVATION QUESTIONNAIRE (SED)

The SED questionnaire was developed in 1984, during the standardisation of the General Scholastic Aptitude Test. Its purpose is to determine a pupil's index of socio-economic status (SES). According to Van den Berg (in Loubser, 1990), it is suggested that the information should only be used, when psychometric test results of a pupil in question, are interpreted (Van den Berg, 1985).

The questionnaire consists of 22 questions about a testee's home environment and it is divided into nine areas. Two questions on physical facilities (e.g., number of bedrooms in the house); one question on the educational level of the parents; five questions on the availability of physical amenities (e.g., refrigerators, hot water systems and flush toilets); two questions on the number of people living in the house; one question on the relationship between parent and child; five questions on the availability of stimulus material (e.g., books and toys); one on the parents' occupational status and one on the parents' interest in the scholastic progress of children.
The questionnaire is completed by the test administrator by consulting the pupil's teacher(s), by indirect questioning of the pupil and/or the pupil's parents and/or by direct observation of the pupil and his/her home environment. Questions are answered either yes or no, all no-answers are added, while the corresponding index is determined from a table. SED index scores of 0 and 1 show an absence of deprivation, while scores of 2 and more are an indication of deprivation (Claassen, 1987; Loubser, 1990).

According to Loubser (1990), the SED questionnaire shows some similarities and differences from foreign questionnaires, while it does not only focus on the occupational status of the parents, as is often the case with many foreign SES questionnaires. The items of the SED were specifically adapted to the characteristics of the home environment of deprived children in South Africa thus making it more suitable than a similar foreign instrument. During the standardisation of the General Scholastic Aptitude Test (GSAT) in 1984, a correlation coefficient of 0.58 was found between the GSAT raw scores and the SED-index scores of a group of 12 to 14 year-old children (Van den Berg, 1985). According to Loubser (1990), this corresponds with the results of similar foreign tests, where a significant relationship between SES and mental ability scores was found.

5.3.6 BIOGRAPHICAL QUESTIONNAIRE

A biographical questionnaire was used for gathering biographical information and to verify the data given about the testees' home environment for the purpose of the SED-index (Appendix 2).
5.4 STATISTICAL METHODS USED FOR DATA INTERPRETATION

To establish possible correlations and differences between the groups studied, statistics were computed based on raw scores for the total sample (N = 303).

As no acceptable criteria for levels of socio-economic status, locus of control and self-esteem could be uncovered for the particular instruments used, descriptive statistics served to describe the dependent variable within the present sample. The statistical assumption of this analysis is that the present sample of matriculants were extracted from a population showing a normal distribution of career maturity, if one were to obtain the entire population of observations (Howell, 1995).

A correlational analysis (using the Pearson Product-Moment Correlation Coefficient, $r$) was done to determine whether a relationship existed between career maturity and the independent variables of socio-economic status, locus of control, self-esteem, mental ability, gender, school and area of residence. The rationale for using the Pearson Product-Moment Correlation Coefficient, is the fact that this study involves quantitative data and it investigates relationships between the dependent variable and various independent variables. It further involves one predictor at a time, works with continuous data and investigates the degree of relationship (Howell, 1995).

A number of One-Way Analysis of Variance computations (ANOVA's) were also carried out to determine the relationship of the significant independent variables on the dependent variable of career maturity. The one-way analysis of variance calculation involved a simple process of determining whether there were significant
differences between the mean of the dependent variable for different levels of the independent variable (Howell, 1995; Jaeger, 1990).

5.5 CONCLUSION

This chapter presented an overview of the research methodology and the statistical methods used for data interpretation. Of particular interest, is the fact that all measuring instruments were completed on the same day and that the instruments used, possess acceptable psychometric properties.
CHAPTER 6
RESULTS

6.1 INTRODUCTION

Chapter one of this study focused on the human resources needs of South Africa and why it is important that groups, other than White, also contribute towards the provision of this country's high level skills. Particular emphasis was put on why groups other than White do not sufficiently help this country in meeting its human resources needs in the scientific, technical, engineering and accounting fields. It is suggested that career development interventions could assist in solving this problem and that proper research should be done to identify career development needs.

Chapter two focused on different career development theories and the factors that impact on the career development process. It also investigated career maturity and illustrated the inter-relatedness between career development and career maturity. In chapter three the focus was on factors influencing career maturity, with particular emphasis on the factors to be researched in this study. Chapter four was about the statement of the research problem and hypotheses, while chapter five was about the research methodology and measuring instruments used in this study. This chapter will focus on the results pertaining to the different variables included in the study.

6.2 SOCIO-ECONOMIC STATUS (SES)

As indicated by the results in Table 6.1, there were significant low negative correlations between career maturity, decision-making skills, career information,
the integration of self- and career information, career planning and SES (p < .01). Since the SES measure was marked in the external direction, these results suggest that the lower the SES score of a matriculant, the more career mature that learner could be expected to be. This also holds true for all the sub-scales of career maturity, except for self-information.

**TABLE 6.1**

**Correlations for Career Maturity and Socio-Economic Status (SES)**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>r</th>
<th>r²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career maturity</td>
<td>303</td>
<td>-0.2899</td>
<td>0.0840</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Self-information</td>
<td>303</td>
<td>-0.1066</td>
<td>0.0113</td>
<td>p=.064</td>
</tr>
<tr>
<td>Decision-making</td>
<td>303</td>
<td>-0.1897</td>
<td>0.0359</td>
<td>p=.001 *</td>
</tr>
<tr>
<td>Career information</td>
<td>303</td>
<td>-0.3342</td>
<td>0.1116</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>303</td>
<td>-0.2432</td>
<td>0.0591</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Career planning</td>
<td>303</td>
<td>-0.2848</td>
<td>0.0811</td>
<td>p=.000 *</td>
</tr>
</tbody>
</table>

* Statistically significant

The following null hypotheses are rejected:

\[ H_0 \] there is no significant correlation between the level of career maturity and the socio-economic status of matriculants.

\[ H_0 \] there is no significant correlation between the learning of decision-making skills task of career maturity and the socio-economic status of matriculants.

\[ H_0 \] there is no significant correlation between the gathering of career information task of career maturity and the socio-economic status of matriculants.
H₀ there is no significant correlation between the integration of self-information and career information task of career maturity and the socio-economic status of matriculants.

H₀ there is no significant correlation between the career planning task of career maturity and the socio-economic status of matriculants.

The following null hypothesis is accepted:

H₀ there is no significant correlation between the obtaining of self-information task of career maturity and the socio-economic status of matriculants.

6.3 LOCUS OF CONTROL (LOC)

As indicated by the results in Table 6.2, there were significant correlations between career maturity and LOC. The correlation between career maturity and LOC is a significant moderate negative correlation \((p < .01)\), whereas the correlation between self information, decision-making, career information, the integration of self and career information, career planning and LOC is a significant low negative correlation \((p < .01)\). Since the LOC measure was marked in the external direction, these results suggest that the more internal the LOC, the more career mature a matriculant could be expected to be. This also holds true for all the sub-scales of career maturity.
TABLE 6.2

Correlations for Career Maturity and Locus of Control (LOC)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>r</th>
<th>r²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career maturity</td>
<td>303</td>
<td>-0.4122</td>
<td>0.1699</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Self-information</td>
<td>303</td>
<td>-0.2694</td>
<td>0.0725</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Decision-making</td>
<td>303</td>
<td>-0.3362</td>
<td>0.1130</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Career information</td>
<td>303</td>
<td>-0.3757</td>
<td>0.1411</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>303</td>
<td>-0.3795</td>
<td>0.1440</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Career planning</td>
<td>303</td>
<td>-0.3604</td>
<td>0.1298</td>
<td>p=.000 *</td>
</tr>
</tbody>
</table>

* Statistically significant

The following null hypotheses are rejected:

\[ H_0 \] there is no significant correlation between the level of career maturity and the locus of control of matriculants.

\[ H_0 \] there is no significant correlation between the obtaining of self-information task of career maturity and the locus of control of matriculants.

\[ H_0 \] there is no significant correlation between the learning of decision-making skills task of career maturity and the locus of control of matriculants.

\[ H_0 \] there is no significant correlation between the gathering of career information task of career maturity and the locus of control of matriculants.

\[ H_0 \] there is no significant correlation between the integration of self-information and career information task of career maturity and the locus of control of matriculants.
H_0 there is no significant correlation between the career planning task of career maturity and the locus of control of matriculants.

6.4 SELF-ESTEEM

As indicated by the results in Table 6.3, there were significant moderate positive correlations between career maturity, decision-making and self-esteem (p < .01). The correlation between self-information, career information, the integration of self and career information, career planning and self-esteem, is a significant low positive correlation (p < .01). These results suggest that the higher the self-esteem score of matriculants, the more career mature they could be expected to be for career maturity, as well as, for the sub-scales of career maturity.

<table>
<thead>
<tr>
<th>TABLE 6.3</th>
</tr>
</thead>
</table>

Correlations for Career Maturity and Self-Esteem

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>r</th>
<th>r^2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career maturity</td>
<td>303</td>
<td>0.4496</td>
<td>0.2021</td>
<td>p=.000</td>
</tr>
<tr>
<td>Self-information</td>
<td>303</td>
<td>0.3312</td>
<td>0.1096</td>
<td>p=.000</td>
</tr>
<tr>
<td>Decision-making</td>
<td>303</td>
<td>0.4590</td>
<td>0.2106</td>
<td>p=.000</td>
</tr>
<tr>
<td>Career information</td>
<td>303</td>
<td>0.3349</td>
<td>0.1121</td>
<td>p=.000</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>303</td>
<td>0.3969</td>
<td>0.1575</td>
<td>p=.000</td>
</tr>
<tr>
<td>Career planning</td>
<td>303</td>
<td>0.3820</td>
<td>0.1459</td>
<td>p=.000</td>
</tr>
</tbody>
</table>

* Statistically significant

The following null hypotheses are rejected:

H_0 there is no significant correlation between the level of career maturity and the level of self-esteem of matriculants.
\( H_0 \) there is no significant correlation between the obtaining of self-information task of career maturity and the level of self-esteem of matriculants.

\( H_0 \) there is no significant correlation between the learning of decision-making skills task of career maturity and the level of self-esteem of matriculants.

\( H_0 \) there is no significant correlation between the gathering of career information task of career maturity and the level of self-esteem of matriculants.

\( H_0 \) there is no significant correlation between the integration of self-information and career information task of career maturity and the level of self-esteem of matriculants.

\( H_0 \) there is no significant correlation between the career planning task of career maturity and the level of self-esteem of matriculants.

### 6.5 MENTAL ABILITY

As indicated by the results in Table 6.4, there were significant low positive correlations between career maturity, self-information, decision-making, career information, the integration of self and career information and mental ability. Correlations with career maturity, self-information, career information and the integration of self and career information, were at the \( p < .01 \) level, whereas the correlation with decision-making was at the \( p < .05 \) level. These results suggest that the higher the mental ability score, the more career mature matriculants could
be expected to be. This also holds true for all the sub-scales of career maturity, except for career planning.

TABLE 6.4

Correlations for Career Maturity and Mental ability

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>r</th>
<th>r²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career maturity</td>
<td>303</td>
<td>0.1841</td>
<td>0.0338</td>
<td>p=.001 *</td>
</tr>
<tr>
<td>Self-information</td>
<td>303</td>
<td>0.1622</td>
<td>0.0263</td>
<td>p=.005 *</td>
</tr>
<tr>
<td>Decision-making</td>
<td>303</td>
<td>0.1147</td>
<td>0.0131</td>
<td>p=.046 *</td>
</tr>
<tr>
<td>Career information</td>
<td>303</td>
<td>0.1688</td>
<td>0.0284</td>
<td>p=.003 *</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>303</td>
<td>0.2446</td>
<td>0.0598</td>
<td>p=.000 *</td>
</tr>
<tr>
<td>Career planning</td>
<td>303</td>
<td>0.1096</td>
<td>0.0120</td>
<td>p=.057</td>
</tr>
</tbody>
</table>

* Statistically significant

The following null hypotheses are rejected:

H₀ there is no significant correlation between the level of career maturity and the mental ability of matriculants.

H₀ there is no significant correlation between the obtaining of self-information task of career maturity and the mental ability of matriculants.

H₀ there is no significant correlation between the learning of decision-making skills task of career maturity and the mental ability of matriculants.

H₀ there is no significant correlation between the gathering of career information task of career maturity and the mental ability of matriculants.
H₀ there is no significant correlation between the integration of self-information and career information task of career maturity and the mental ability of matriculants.

The following null hypothesis is accepted:

H₀ there is no significant correlation between the career planning task of career maturity and the mental ability of matriculants.

6.6 GENDER

As indicated by the results in Table 6.5, there is a significant low negative correlation between self-information ($p < .01$), decision-making ($p < .05$) and gender. These results suggest that matriculants could be expected to be more or less career mature for self-information and decision-making, depending on their gender.

<table>
<thead>
<tr>
<th>TABLE 6.5</th>
<th>Correlations for Career Maturity and Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Career maturity</td>
<td>303</td>
</tr>
<tr>
<td>Self-information</td>
<td>303</td>
</tr>
<tr>
<td>Decision-making</td>
<td>303</td>
</tr>
<tr>
<td>Career information</td>
<td>303</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>303</td>
</tr>
<tr>
<td>Career planning</td>
<td>303</td>
</tr>
</tbody>
</table>

* Statistically significant
The following null hypotheses are rejected:

$H_0$ there is no significant correlation between the obtaining of self-information task of career maturity and the gender of matriculants.

$H_0$ there is no significant correlation between the learning of decision-making skills task of career maturity and the gender of matriculants.

The following null hypotheses are accepted:

$H_0$ there is no significant correlation between the level of career maturity and the gender of matriculants.

$H_0$ there is no significant correlation between the gathering of career information task of career maturity and the gender of matriculants.

$H_0$ there is no significant correlation between the integration of self-information and career information task of career maturity and the gender of matriculants.

$H_0$ there is no significant correlation between the career planning task of career maturity and the gender of matriculants.
The results of an analysis of variance for Gender (Tables 6.6 and 6.7), indicated that there is also a significant difference between mean scores for self-information and decision-making \((p < .05)\). In both these cases Females have significantly higher mean scores than their male counterparts.

**TABLE 6.6**

**Gender: Analysis of Variance for Career Maturity, Locus of Control, Socio-economic Status and Mental Ability Scores**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F-ratio</th>
<th>F-prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total career maturity</td>
<td>Between groups</td>
<td>784,6862</td>
<td>1</td>
<td>784,6862</td>
<td>3,6455</td>
<td>.0572</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>64789,2147</td>
<td>301</td>
<td>215,2466</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-information</td>
<td>Between groups</td>
<td>46,8033</td>
<td>1</td>
<td>46,8033</td>
<td>7,2784</td>
<td>.0074</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>1935,5598</td>
<td>301</td>
<td>6,4304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision-making</td>
<td>Between groups</td>
<td>80,5242</td>
<td>1</td>
<td>80,5242</td>
<td>6,2976</td>
<td>.0126</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>3848,7101</td>
<td>301</td>
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<tr>
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<td>1</td>
<td>7,8955</td>
<td>0,4026</td>
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<tr>
<td></td>
<td>Within groups</td>
<td>5902,9814</td>
<td>301</td>
<td>19,6112</td>
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<tr>
<td>Integration of self and career information</td>
<td>Between groups</td>
<td>19,1957</td>
<td>1</td>
<td>19,1957</td>
<td>1,9556</td>
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<td>301</td>
<td>9,8160</td>
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<tr>
<td>Career planning</td>
<td>Between groups</td>
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<td>1,5477</td>
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<td>4003,1260</td>
<td>301</td>
<td>13,2994</td>
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<td>Locus of control</td>
<td>Between groups</td>
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<td>0,0809</td>
<td>0,0041</td>
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<td>5991,5297</td>
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<td>19,9054</td>
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<td></td>
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<td>Socio-econ. status</td>
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<td>6,2460</td>
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<td>6,2584</td>
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<td>1</td>
<td>2,0598</td>
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<td>.7619</td>
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<td>6740,4353</td>
<td>301</td>
<td>22,3935</td>
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<td></td>
</tr>
<tr>
<td>Mental ability</td>
<td>Between groups</td>
<td>10474,7327</td>
<td>302</td>
<td>0,0426</td>
<td>0,0012</td>
<td>.9721</td>
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<tr>
<td></td>
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<td>10474,6901</td>
<td>301</td>
<td>34,7996</td>
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</table>
TABLE 6.7

Gender: Difference between Means for all Variables and Standard Deviations

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Female (N = 176)</th>
<th>Male (N = 127)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Maturity</td>
<td>Mean 69,159</td>
<td>Mean 65,898</td>
</tr>
<tr>
<td></td>
<td>SD 14,110</td>
<td>SD 15,417</td>
</tr>
<tr>
<td>Self-information</td>
<td>Mean 14,568*</td>
<td>Mean 13,772</td>
</tr>
<tr>
<td></td>
<td>SD 2,504</td>
<td>SD 2,580</td>
</tr>
<tr>
<td>Decision-making</td>
<td>Mean 14,313*</td>
<td>Mean 13,268</td>
</tr>
<tr>
<td></td>
<td>SD 3,451</td>
<td>SD 3,743</td>
</tr>
<tr>
<td>Career info</td>
<td>Mean 12,540</td>
<td>Mean 12,213</td>
</tr>
<tr>
<td></td>
<td>SD 4,369</td>
<td>SD 4,510</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>Mean 14,943</td>
<td>Mean 14,433</td>
</tr>
<tr>
<td></td>
<td>SD 3,059</td>
<td>SD 3,233</td>
</tr>
<tr>
<td>Career planning</td>
<td>Mean 12,733</td>
<td>Mean 12,205</td>
</tr>
<tr>
<td></td>
<td>SD 3,423</td>
<td>SD 3,937</td>
</tr>
<tr>
<td>Locus of control</td>
<td>Mean 21,159</td>
<td>Mean 21,126</td>
</tr>
<tr>
<td></td>
<td>SD 4,304</td>
<td>SD 4,672</td>
</tr>
<tr>
<td>Socio-economic deprivation</td>
<td>Mean 3,409</td>
<td>Mean 3,118</td>
</tr>
<tr>
<td></td>
<td>SD 2,459</td>
<td>SD 2,559</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Mean 15,494</td>
<td>Mean 15,661</td>
</tr>
<tr>
<td></td>
<td>SD 4,755</td>
<td>SD 4,701</td>
</tr>
<tr>
<td>Mental ability</td>
<td>Mean 37,040</td>
<td>Mean 37,016</td>
</tr>
<tr>
<td></td>
<td>SD 5,218</td>
<td>SD 6,732</td>
</tr>
</tbody>
</table>

Significance: * = p<0.05

6.7 SCHOOLS

The results in Table 6.8 indicate a significant positive low correlation between career maturity, self-information, career information, the integration of self and career information, career planning and school attended (p < .01). These results suggest that matriculants could be expected to be more or less career mature depending on the school they attend.

TABLE 6.8

Correlations for Career Maturity and School

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>r</th>
<th>r^2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career maturity</td>
<td>303</td>
<td>0.2281</td>
<td>0.0520</td>
<td>p = 0.000 *</td>
</tr>
<tr>
<td>Self-information</td>
<td>303</td>
<td>0.1564</td>
<td>0.0244</td>
<td>p = 0.006 *</td>
</tr>
<tr>
<td>Decision-making</td>
<td>303</td>
<td>0.1085</td>
<td>0.0117</td>
<td>p = 0.059</td>
</tr>
<tr>
<td>Career information</td>
<td>303</td>
<td>0.1861</td>
<td>0.0346</td>
<td>p = 0.001 *</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>303</td>
<td>0.3155</td>
<td>0.0995</td>
<td>p = 0.000 *</td>
</tr>
<tr>
<td>Career planning</td>
<td>303</td>
<td>0.2093</td>
<td>0.0438</td>
<td>p = 0.000 *</td>
</tr>
</tbody>
</table>

* Statistically significant
The following null hypotheses are rejected:

\( H_0 \)  there is no significant correlation between the level of career maturity of matriculants and the school they attend.

\( H_0 \)  there is no significant correlation between the obtaining of self-information task of career maturity for matriculants and the school they attend.

\( H_0 \)  there is no significant correlation between the gathering of career information task of career maturity for matriculants and the school they attend.

\( H_0 \)  there is no significant correlation between the integration of self-information and career information task of career maturity for matriculants and the school they attend.

\( H_0 \)  there is no significant correlation between the career planning task of career maturity for matriculants and the school they attend.

The following null hypothesis is accepted:

\( H_0 \)  there is no significant correlation between the learning of decision-making skills task of career maturity for matriculants and the school they attend.
The results of an analysis of variance for schools (Tables 6.9 and 6.10) indicate significant differences between mean scores for career maturity between different schools. Schools B and A and Schools C and A differ significantly in their mean scores for career maturity (p < .05). Schools C and A differ significantly in their mean scores for self information (p < .05), while Schools B and A differ significantly in their mean scores for decision-making (p < .05). Schools B and A, and Schools C and A, differ significantly in their mean scores for career information (p < .05). The mean scores for the integration of self and career information differ significantly between Schools B and A, and C and A, as well as, between Schools C and B (p < .05). Schools B and A, and Schools C and A, differ significantly in their mean scores for career planning (p < .05).

**TABLE 6.9**

**School: Difference between Means for all Variables and Standard Deviation**

<table>
<thead>
<tr>
<th>Variables</th>
<th>School A (N = 65) Mean</th>
<th>SD</th>
<th>School B (N = 148) Mean</th>
<th>SD</th>
<th>School C (N = 90) Mean</th>
<th>SD</th>
<th>Significant Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career maturity</td>
<td>60,939</td>
<td>13,1837</td>
<td>68,9324</td>
<td>13,9414</td>
<td>70,8667</td>
<td>15,6444</td>
<td>B+A; C+A</td>
</tr>
<tr>
<td>Self-information</td>
<td>13,7077</td>
<td>2,8047</td>
<td>14,1149</td>
<td>2,4370</td>
<td>14,8111</td>
<td>3,8125</td>
<td>B+A</td>
</tr>
<tr>
<td>Decision-making</td>
<td>12,8462</td>
<td>3,4106</td>
<td>14,2095</td>
<td>3,5017</td>
<td>14,0667</td>
<td>4,7640</td>
<td>B+A; C+A</td>
</tr>
<tr>
<td>Career information</td>
<td>10,4769</td>
<td>3,6017</td>
<td>12,8986</td>
<td>4,3280</td>
<td>12,9778</td>
<td>3,0816</td>
<td>B+A; C+A; C+B</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>12,9692</td>
<td>3,0668</td>
<td>14,8378</td>
<td>2,8763</td>
<td>15,8222</td>
<td>4,8617</td>
<td>C+A</td>
</tr>
<tr>
<td>Career Planning</td>
<td>10,9077</td>
<td>3,3200</td>
<td>12,8108</td>
<td>3,4154</td>
<td>13,1778</td>
<td>3,9422</td>
<td>C+A</td>
</tr>
<tr>
<td>Locus of control</td>
<td>22,8923</td>
<td>4,8577</td>
<td>21,0270</td>
<td>4,1665</td>
<td>20,0778</td>
<td>4,2747</td>
<td>C+A; B+A</td>
</tr>
<tr>
<td>Socio-econ. deprivation</td>
<td>4,8000</td>
<td>2,7455</td>
<td>3,5000</td>
<td>2,2177</td>
<td>1,8444</td>
<td>1,9598</td>
<td>C+A; B+A; C+B</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>14,7077</td>
<td>4,2195</td>
<td>15,7162</td>
<td>4,8347</td>
<td>15,9333</td>
<td>4,8617</td>
<td>C+B</td>
</tr>
<tr>
<td>Mental ability</td>
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<td>9,0843</td>
<td>37,2162</td>
<td>4,4638</td>
<td>38,4778</td>
<td>4,3530</td>
<td>C+A; B+A</td>
</tr>
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</table>

Significance: * = p < .05
### TABLE 6.10

**School: Analysis of Variance for Career Maturity, Locus of Control, Socio-economic Status and Mental Ability Scores**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F-ratio</th>
<th>F-prob</th>
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<tbody>
<tr>
<td>Total career maturity</td>
<td>Total</td>
<td>65573.9010</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Between groups</td>
<td>4096.4228</td>
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<td>2048.2114</td>
<td>9.9949</td>
<td>.0001</td>
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<td>61477.4782</td>
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<td>204.9249</td>
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<td>Total</td>
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<td>302</td>
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</tr>
<tr>
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<td>Between groups</td>
<td>50.0807</td>
<td>2</td>
<td>25.0403</td>
<td>3.8877</td>
<td>.0215</td>
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<td>Within groups</td>
<td>1932.2823</td>
<td>300</td>
<td>6.4409</td>
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</tr>
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<td>Decision-making</td>
<td>Total</td>
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</tr>
<tr>
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<td>Between groups</td>
<td>88.6660</td>
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<td>44.3330</td>
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<td>.0326</td>
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<tr>
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<td>5603.8507</td>
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<td>18.6788</td>
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<tr>
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<td>155.3032</td>
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<td>2663.2021</td>
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<td>8.8773</td>
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<td>Total</td>
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<td></td>
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<td></td>
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<td>110.2026</td>
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<td>3803.3044</td>
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<td>12.6777</td>
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</tr>
<tr>
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<td>Total</td>
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<td></td>
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<tr>
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<td>5688.5936</td>
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<td>Total</td>
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<td></td>
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<tr>
<td></td>
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<td>342.7976</td>
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<td>171.3988</td>
<td>33.2335</td>
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<td>1547.2222</td>
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<td></td>
</tr>
<tr>
<td></td>
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<td>31.6339</td>
<td>1.4231</td>
<td>.2426</td>
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<tr>
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<td>22.2638</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental ability</td>
<td>Total</td>
<td>10474.7327</td>
<td>302</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between groups</td>
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<td>288.7980</td>
<td>8.7540</td>
<td>.0002</td>
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<tr>
<td></td>
<td>Within groups</td>
<td>9897.1366</td>
<td>300</td>
<td>32.9905</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 6.8 AREA OF RESIDENCE

There are no significant correlations between career maturity, self-information, decision-making, career information, the integration of self and career information, career planning and area of residence (Table 6.11).
The following null hypotheses are accepted:

$H_0$ there is no significant correlation between the level of career maturity of matriculants and their residential area.

$H_0$ there is no significant correlation between the obtaining of self-information task of career maturity for matriculants and their residential area.

$H_0$ there is no significant correlation between the learning of decision-making skills task of career maturity for matriculants and their residential area.

$H_0$ there is no significant correlation between the gathering of career information task of career maturity for matriculants and their residential area.

$H_0$ there is no significant correlation between the integration of self-information and career information task of career maturity for matriculants and their residential area.

$H_0$ there is no significant correlation between the career planning task of career maturity for matriculants and their residential area.
TABLE 6.11
Correlations for Career Maturity and Area of Residence

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>r</th>
<th>r²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career maturity</td>
<td>303</td>
<td>-0.0566</td>
<td>0.0032</td>
<td>p=0.326</td>
</tr>
<tr>
<td>Self-information</td>
<td>303</td>
<td>0.0581</td>
<td>0.0033</td>
<td>p=0.314</td>
</tr>
<tr>
<td>Decision-making</td>
<td>303</td>
<td>-0.0440</td>
<td>0.0019</td>
<td>p=0.446</td>
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<td>303</td>
<td>-0.0913</td>
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<td>p=0.113</td>
</tr>
<tr>
<td>Integration of self and career info</td>
<td>303</td>
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<td>0.0017</td>
<td>p=0.471</td>
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<td>Career planning</td>
<td>303</td>
<td>-0.0761</td>
<td>0.0057</td>
<td>p=0.186</td>
</tr>
</tbody>
</table>

* Statistically significant

The results of an analysis of variance for area of residence (Tables 6.12 and 6.13) indicate significant differences between mean scores for career maturity and area of residence. Area D differs significantly from Areas C and E, and Area F differs significantly from Areas C and E in mean score for career maturity (p < 0.05). Area D differs significantly in mean score from Areas E and C for decision-making (p < 0.05), while Area D differs significantly in mean score from Area C for career information (p < 0.05). Area F differs significantly in mean score from Areas E and C, while Area D differs significantly in mean score from Area E for the integration of self and career information (p < 0.05). Area D differs significantly in mean score from Areas E and C, while Area F differs significantly in mean score from Areas E and C for career planning (p < 0.05).
### TABLE 6.12

Area of Residence: Difference between Means for all Variables and Standard Deviations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Area A Mean</th>
<th>SD</th>
<th>Area B Mean</th>
<th>SD</th>
<th>Area C Mean</th>
<th>SD</th>
<th>Area D Mean</th>
<th>SD</th>
<th>Area E Mean</th>
<th>SD</th>
<th>Area F Mean</th>
<th>SD</th>
<th>Area G Mean</th>
<th>SD</th>
<th>Area H Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>career info.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Significance: * = p < 0.05
### TABLE 6.13

<table>
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<tr>
<th>Variable</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
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<th>F-prob</th>
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<td>Total career maturity</td>
<td>Between groups</td>
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<td>706,7824</td>
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<td></td>
<td>Within groups</td>
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<td>205,5133</td>
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<td>Between groups</td>
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<td>7</td>
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<td>1,1864</td>
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<tr>
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<td>Within groups</td>
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<td>6,5359</td>
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<td>Decision-making</td>
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<td>12,5633</td>
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<td>Integration of self and career</td>
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<td>7</td>
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<td>Mental ability</td>
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</tbody>
</table>

### 6.9 CONCLUSION

The results of this study indicate that there are some correlations between career maturity and its sub-scales and most of the variables researched for this study. The only variable which has no correlation with career maturity and its sub-scales, is area of residence. The next chapter will focus on a discussion of these results and offer some recommendations.
CHAPTER 7
DISCUSSION OF RESULTS AND RECOMMENDATIONS

7.1 DISCUSSION OF RESULTS

The focus of this study was to examine the effects of various individual and environmental variables on the career maturity of Coloured matriculants. The study has shown that some individual and environmental factors do influence the level of career maturity of Coloured matriculants and support the findings of previous studies done on the subject of career maturity.

7.1.1 SOCIO-ECONOMIC STATUS

An analysis of the research data, confirms the results of previous studies, which found a correlation between career maturity and socio-economic status (Karayanni, 1981; Watson and Van Aarde, 1986 and Swanson and Tokar, 1991). The proportion of the variance of career maturity, which is predictable from socio-economic status is, however, very low. The percentages were 8% for career maturity, 3.5% for decision-making, 11% for career information, 5.9% for the integration of self and career information and 8% for career planning. Even though these percentages are very low, there is sufficient evidence to suggest that one should look at ways of assisting these learners from low socio-economic backgrounds in the career development process and thus impact their levels of career maturity, positively. This would help to bring about improvements in the areas of career maturity, decision-making, career information, the integration of self and career information and career planning.
7.1.2 LOCUS OF CONTROL

The current research data confirms the findings of previous studies (Gable, Thompson and Glanstein, 1984 and Blustein, 1989), which indicated that internally controlled people are more career mature than externally controlled people. The proportion of the variance of career maturity, which is predictable from locus of control, is low. The percentages were 17% for career maturity, 7% for self information, 11% for decision-making, 14% for career information, 14% for the integration of self and career information and 12% for career planning.

Locus of control is positively related to self-information, career information, career planning and career choice (Super and Bowlsbey, 1981 and Gardner 1981) and is also closely linked to social circumstances. Watson (1984) found that individuals who are restricted by social circumstances and economic limitations have greater external LOC. This study indicates correlations between both career maturity and SES, and career maturity and LOC. It is obvious therefore that some matriculants would definitely have problems with the gathering of self and career information, career planning and the ultimate decision about career choice.

7.1.3 SELF-ESTEEM

Blustein (1989) found that people with low self-esteem are less career mature than those with a positive self-esteem, whereas Munson (1992) found that individuals who are high in self-esteem have clearer, more certain career self-concepts and differentiate better on how well alternative careers would meet their needs and abilities. The current research indicates that there is a correlation between career maturity and self-esteem even though the correlations are low. The proportion of
the variance of career maturity, which is predictable from self-esteem, is the highest compared to other variables researched for this study. The percentages were 20% for career maturity, 10.9% for self-information, 21% for decision-making, 11% for career information, 15.7% for the integration of self and career information and 14.5% for career planning.

On the basis of the results produced by this research, one can thus assume that the matriculants involved in this study, would encounter the same problems as identified by both Blustein (1989) and Munson (1992). It is important, therefore, to examine ways of impacting their self-esteem in a positive way and in so doing also enhance their career maturity.

7.1.4 MENTAL ABILITY
The results of the current study generally confirm the research results cited by Watson and Van Aarde (1986), which suggest that the findings are mainly positive when mental ability is used as a variable for predicting levels of career maturity. The correlations were however, very low in comparison with other variables researched for this study. The proportion of the variance of career maturity, which is predictable from mental ability, was 3% for career maturity, 2.6% for self information, 1% for decision-making, 2.8% for career information and 5.9% for the integration of self and career information.

7.1.5 GENDER
The notion that there is no certainty regarding the career maturity of males and females is confirmed by this study. The only significant correlations are between
gender and self-information and gender and decision-making. The proportion of the variance of career maturity, which is predictable from gender, were 2% for both self-information and decision-making, which is very low. The results of an analysis of variance also indicate significant differences in the mean scores for self-information and decision-making, with females obtaining significantly higher mean scores for these two variables.

7.1.6 SCHOOL

The results of this study indicate a correlation between career maturity and the school attended. The proportion of the variance of career maturity which is predictable from the school attended, is however, very low. The percentages were 5% for career maturity, 2% for self-information, 3% for career information, 9.9% for the integration of self and career information and 4% for career planning.

An analysis of variance indicates that schools B and C tend to obtain significantly higher mean scores than school A for career maturity, self-information, decision-making, career information, the integration of self and career information and career planning. These significant differences in mean scores, could be accounted for by the significant differences in mean scores for socio-economic status, locus of control and mental ability. It should also be noted that matriculants from school A, are mainly from predominantly rural, farming areas with low SES and thus a tendency toward externalisation.

It is thus important to note that the differences in career maturity for schools, are accounted for by various variables and when programmes are introduced to counter
the effects of these variables, one should make sure that these variables are properly researched.

7.1.7 AREA OF RESIDENCE
No significant correlations were reported for career maturity and area of residence. There are, however, significant differences in the mean scores for career maturity for different residential areas. Areas C and E differ significantly from Area F in career maturity, the integration of self and career information and career planning. It is important to note that there are also significant differences in the mean scores of socio-economic status and locus of control for Areas E and F and for socio-economic status for Areas C and F. These differences should be taken into consideration, because, area of residence, together with socio-economic status, provides the setting in which an individual becomes familiar with the world of work and the opportunities it offers (Watson, 1984).

Areas C and E also differ significantly from Area D in career maturity, decision-making, career information, the integration of self and career information and career planning. It should however, also be noted that Areas C and E have bigger n-values than Areas D and F and this could also play a significant role in the differences reported.

It should, however, be emphasised that one should also be careful when addressing the differences in mean scores for the different residential areas. It is important to determine the impact of variables, like socio-economic status and locus of control first, before implementing programmes to address the differences between areas.
7.2 RECOMMENDATIONS

This study has shown that socio-economic status, locus of control, self-esteem and mental ability, generally correlate significantly with career maturity and its sub-scales. It is thus important that these variables be addressed in interventions aimed at improving the levels of career maturity for this sample group.

7.2.1 PARENT INVOLVEMENT

The influence of socio-economic status on career development and career maturity, again illustrates the critical impact parents can have on the development of their children. A recommendation for this study would be that parents should be more involved in the career development process of their children. For this to be possible it would require a major paradigm-shift from parents. The perception that the school and government are responsible for education and career guidance of learners needs to change. With financial pressure on schools and especially those schools in disadvantaged areas, the role of the guidance teacher is diminishing and in some cases these posts do not even exist any more. This requires an even greater responsibility on the parent to become more involved in the career development of their children.

Mostert (1995) researched the success of a particular programme of parental involvement in the career development of their children and found the programme to show great promise. He found that a significant number of parents want to be more involved and even suggested that this be done from primary school level. The focus of his programme was on:

- accepting the parental role and responsibilities
- accepting that career choice is a process
- realism of parental expectations by parents
- sensitivity of the parent-child relationship

Mostert’s study was done with parents from mainly middle-class and higher origin, but it could also be introduced at the lower SES level, even though it would require much more effort. A particular requirement would be that both parent and child realise the importance of taking personal control of the career development process.

Mostert’s programmes could be combined successfully with Cochran and Palmer’s (1988) Partners programme. This programme helps the parent to facilitate self-awareness, to develop occupational information and it leads to an improvement in career development scores. As discussed earlier, it would also be critical to include interventions aimed at developing an internal locus of control and increasing self-esteem, when running these programmes.

7.2.2 COMMUNITY RESOURCES

Outside of the school, but within the local community, are many resources that can build insight into and an understanding of career fields. Almost everyone is a potential resource to help students. Within the communities where this research was conducted, it is essential that successful local role-models be identified and utilised to help students in the career development process. These local role-models could be very powerful, because they have experienced the very same difficulties that most of these learners currently encounter. For this to be successful, it would require from communities to develop close ties with their local businesses and industries which could support these programmes in various ways.


7.2.3 SCHOOL RESOURCES

Schools need to become more creative when it comes to career guidance and career development. Gone are the days where only the guidance teacher was involved with career guidance and counselling. Each teacher, at every school, should be involved in guidance and counselling and they should make a concerted effort to familiarise themselves with the world of work and career opportunities available to students.

Zunker (1994) suggests some very useful tips for career guidance at school. It must provide programmes designed to meet the needs of students at various stages of the career development process. Students at senior high school level should benefit from information, activities and modules that call for matching occupations with physical characteristics and skills. Students should understand the relationship of career choices and educational requirements. Work values, work environments, work habits and other issues associated with work, are of particular value to the novice. Community visits and interviews with individuals in different occupations are relevant activities for helping senior high school students relate their own personal characteristics to occupational requirements. All of these are very helpful and when implemented as part of the guidance programme at schools in disadvantaged areas, it would certainly bring about major improvements in the career development process.

7.2.4 LIFE SKILLS TRAINING

Parents of most of the matriculants involved in this study, come from mainly low SES backgrounds. Many of them lack the skill and know-how to assist their children...
in making well-informed career choices and these children must very often fend for themselves when it comes to career development issues. It is thus important that career development interventions for these children are not presented in a vacuum, but within the broader sphere of career experiences that involve integrating career planning with other life roles. It is important therefore that the following components, as proposed by Isaacson and Brown (1997), be included in a life-planning workshop for high school students:

- understanding human behaviour
- conceptualizing one's self as a winner
- the importance of fantasy in planning
- matching fantasy and reality
- setting goals
- short-term planning
- long-term planning.

7.3 CONCLUSION

In concluding this study, it needs to be emphasised that socio-economic status plays a major role in the career development process of the group studied. Where SES is low, self-esteem and locus of control very often also become a major problem. Where groups are compared on the basis of school attended, gender or area of residence, these factors also seem to be major contributors to the level of career maturity and readiness to make career choices. It would thus be useful to go back to the schools that participated in this study, give feedback on the research results and assist in the process of implementing some of the recommendations.
REFERENCES


APPENDIX 1

MENINGSVRAELYS / OPINION QUESTIONNAIRE

1. Naam van skool: ................................................................. Name of School:

2. Van / Surname: .................................................................

3. Voorletters / Initials: .............................................

4. Standerd / Standard: 6 7 8 9 10

INSTRUKSIES

Die onderstaande items handel oor voorvalle en situasies wat in die samelewing voorkom. Dui by elke item aan of jy saamstem of verskil met die stelling deur die toepaslike blokkie te merk.

Byvoorbeeld: Die gevolg van harde werk is altyd sukses

Beantwoord asseblief elke item so versigtig as moontlik, en gee net een antwoord vir elke stelling. Probeer om geen items onbeantwoord te laat nie.

Partykeer mag jy dit moeilik vind om op 'n antwoord te besluit. Probeer die antwoord kies wat die naaste is aan wat jy werkelik glo, eerder as die een wat jy dink jy behoort te kies, of wat jy graag sou wou hé moet waar wees.

Hierdie is nie 'n toets nie maar 'n maatsaf van jou persoonlike oortuiging. Daar is dus venselfsprekend geen regte of verkeerde antwoorde nie.

INSTRUCTIONS

The items below are about events and situations that occur in society; for each item please say whether you agree or disagree with the statement, by ticking the appropriate box.

For example: Hard work always results in success. Agree Disagree

Please answer each item as carefully as possible, and give one answer only for each statement. Try not to leave any items blank.

Sometimes, you may find it difficult to decide on an answer. Just try to choose the answer that most closely describes what you actually believe, rather than the one you think you should choose, or would like to be true.

This is a measure of personal belief, and not a test, so obviously there are no right of wrong answers.
1. Daar is werklig nie so iet soos "die toeval" nie. There really is no such thing as luck.

2. Op die lang duur word die slegte dinge wat met ons gebeur, deur die goeies uitgebalanseer. In the long run, the bad things that happen to us are balanced by the good ones.

3. Menigmaal voel ek dat ek min invloed het op die dinge wat met my gebeur. Many times I feel that I have little influence over the things that happen to me.

4. Op die lang duur is burgers verantwoordelik vir slegte regering op 'n nasionale sowel as op 'n plaaslike vlak. In the long run, the people are responsible for bad government on a national as well as on a local level.

5. Baie van die ongelukkige dinge in mense se lewens kan gedeeltelik toegeskryf word aan ongelukkige toeval wat hulle tref. Many of the unhappy things in peoples lives are partly due to bad luck.

6. Sonder die regte gelukslae kan 'n mense nie 'n effektiewe leier wees nie. Without the right lucky breaks, one cannot be an effective leader.

7. Eksamenvrae neig dikwels om so min verband te hou met die kursuswerk dat studie eintlik nutteloos is. Many times, exam questions tend to be so unrelated to school work that studying is really useless.

8. Baie keer kan ons net sowel besluit wat om te doen, deur 'n muntstuk op te skiet. Many times, we might just as well decide what to do by tossing a coin.

9. Met genoeg inspanning, kan ons politieke korrupsie uitroei. With enough effort, we can wipe out political corruption.
10. Ek het al dikwels gevind dat wat moet gebeur, sal gebeur. I have often found that what is going to happen, will happen.

11. Sover dit wêreldsake betref, is die meeste van ons slagoffers van magte wat ons nog verstaan nog kan beheer. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.

12. Die meeste ongelukkige gebeurtenisse is die gevolg van 'n gebrek aan bekwaamheid, onkunde, luiheid of aldrie. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

13. Daar sal altyd oorloe wees, dit maak nie saak hoe hard mense dit probeer voorkom nie. There will always be wars, no matter how hard people try to prevent them.

14. Daar is 'n direkte verband tussen hoe hard ek gestudeer het en die punte wat ek behaal het. There is a direct connection between how hard I study and the marks I get.

15. Die meeste van die tyd kan ek nie verstaan waarom politici doen wat hulle doen nie. Most of the time, I can't understand why politicians behave the way they do.

16. Deur aktief aan politieke en maatskaplike aangeleenthede deel te neem kan mense wêreldsake beheer. By taking active part in political and social affairs the people can control world events.

17. Die wêreld word beheer deur 'n klompie mense wat die mag het en daar is min wat die gewone man daaraan kan doen. This world is run by a few people in power, and there is not much the ordinary man can do about it.

18. Vir 'n goed voorbereide student is daar selde of ooit so iets as 'n onregverdige toets. In the case of a well prepared student, there is rarely if ever, such a thing as an unfair test.
19. Mense se ongelukke kom van die foute wat hulle begaan. 
People's misfortunes result from the mistakes they make.

20. Dit maak nie saak hoe hard 'n mens probeer nie, party mense hou net nie van jou nie. 
No matter how hard you try, some people just don't like you.

21. Mense kan moeilik veel beheer uitoefen oor die dinge wat politici wat aan bewind is, doen. 
It is difficult for people to have much control over the things politicians do in office.

22. Wat met my gebeur, is deur my eie toedoen. 
What happens to me is my own thing.

23. Dit is nie altyd wys om te ver vooruit te beplan nie, want baie dinge blyk 'n kwessie van geluk of ongeluk te wees. 
It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad luck anyway.

24. Wie baas word, hang dikwels af van wie gelukkig genoeg was om eerste op die regte plek te wees. 
Who gets to be boss often depends on who was lucky enough to be in the right place first.

25. Dit is moeilik om te weet of iemand werklik van jou hou of nie. 
It is hard to know whether or not a person really likes you.

26. Dit is vir my onmoontlik om te glo dat toeval of die geluk 'n belangrike rol in my lewe speel. 
It is impossible for me to believe that change or luck plays an important role in my life.

27. Een van die hoofredes waarom daar oorloë is, is omdat mense nie genoeg in politieke aangeleenthede belangstel nie. 
One of the major reasons why we have wars, is because people don't take enough interest in politics.
28. Op die lang duur ontvang mense in die wêreld die agting wat hulle verdien. In the long run, people get the respect they deserve in this world.

29. Om 'n betrekking te kry, hang hoofsaaklik af of jy op die regte tyd op die regte plek is. Getting a good job depends mainly on being in the right place at the right time.

30. Om te kry wat ek wil hê, het in my geval min of niks met geluk te doen nie. In my case, getting what I want has little or nothing to do with luck.

31. Soms kan ek nie verstaan hoe onderwysers by die punte wat hulle toegeken het, uitgekom het nie. Sometimes I can't understand how teachers arrive at the marks they give.

32. Dit het nie veel nut om te hard te probeer om mense te plesier nie: as hulle van jou hou, hou hulle van jou. There's not much use in trying too hard to please people: if they like you, they like you.

33. Ongelukkig bly 'n persoon se waarde dikwels sender erkenning, al probeer hy ook hoe hard. Unfortunately, an individual's worth often passes unrecognised no matter how he tries.

34. Wanneer ek planne beraam, is ek feitlik seker dat ek hulle kan laat uitwerk. When I make plans, I am almost certain that I can make them work.

35. Die meeste mense besef nie tot watter mate hulle lewens beheer word deur dinge wat per ongeluk plaasvind nie. Most people don't realise the extent to which their lives are controlled by accidental happenings.

36. Mense is eensaam omdat hulle nie vriendelik probeer wees nie. People are lonely because they don't try to be friendly.
37. Om op die toeval staat te maak, het nog nooit vir my so goed uitgewerk as om op 'n bepaalde gedragslyn te besluit nie.
   Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

38. Die idee dat onderwysers teenoor hul leerlinge onregverdig is, is onsin.
   The idea that teachers are unfair to students is nonsense.

39. Bekwame mense wat nie leiers word nie, het nie hulle geleenthede benut nie.
   Capable people who fail to become leaders have not taken advantage of their opportunities.

40. Die meeste leerlinge besef nie tot watter mate hulle punte deur toevallige gebeure beïnvloed word nie.
   Most students don't realise the extent to which their marks are influenced by accidental happenings.

41. Om suksesvol te word, is 'n kwessie van harde werk: geluk het min of niks daarmee te doen nie.
   Becoming a success is a matter of hard work: luck has little or nothing to do with it.

42. Om mense die regte ding te laat doen, berus op bekwaamheid: geluk het min of niks daarmee te doen nie.
   Getting people to do the right thing depends upon ability: luck has little or nothing to do with it.

43. Mense wat nie daarin slaag om andere van hulle te laat hou nie, verstaan nie hoe om met andere klaar te kom nie.
   People who can't get others to like them, don't understand how to get along with others.

44. Die gemiddelde burger kan 'n invloed hê op regeringsbesluite.
   The average citizen can have an influence in government decisions.

45. Hoeveel vriende 'n mens het, hang af van hoe vriendelik jy is.
   How many friends you have depends on how nice a person you are.
46. Soms voel ek dat ek nie genoeg beheer het oor die koers wat my lewe inslaan nie. Sometimes I feel that I don't have enough control over the direction my life is taking.

BAIE DANKIE - U SAMEWERKING WORD WAARDEER.

THANK YOU VERY MUCH - YOUR CO-OPERATION IS APPRECIATED.
### APPENDIX 2

**BIOGRAFIESE VRAELYS**

1. **VAN:** ..................................................  **VOORLETTERS:** ........................................

2. **GESLAG:**
   Merk asseblief die toepaslike blokkie.
   - MANLIK
   - VROULIK

3. **WAT IS JOU HUISTAAL?**
   Merk asseblief die toepaslike blokkie.
   - AFR
   - ENG
   - ANDER

4. **VADER SE OPLEIDING:** Indien geen vader, gee asseblief die opleiding of kwalifikasies van moeder of voog. Merk asseblief die toepaslike blokkie.

<table>
<thead>
<tr>
<th>GEEN</th>
<th>LAERSKOOL</th>
<th>STANDERD 8</th>
<th>VAKLEERLINGSKAP</th>
<th>MATRIEK</th>
<th>VERDERE OPLEIDING (Universiteit uitgesluit)</th>
<th>UNIVERSITEIT</th>
</tr>
</thead>
</table>

5. **VADER SE BEROEP:** Indien geen vader, gee asseblief die beroep van moeder of voog.

   (a) **WAAR WERK JOU VADER:**

   ............................................................................................................................
   ............................................................................................................................

   (b) **WATTER TIPE WERK DOEN JOU VADER DAAR?**

   ............................................................................................................................
   ............................................................................................................................
   ............................................................................................................................
6. Merk af watter van die volgende by julle huis beskikbaar is.

<table>
<thead>
<tr>
<th>Item</th>
<th>JA</th>
<th>NEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLAAPKAMER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOON/SITKAMER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KOMBIUIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BADKAMER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPOELTOILET</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELEKTRISITEIT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARMWATERKRAAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STOOF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YSKAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TELEVISIESTEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RADIO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIBLIOTEKBOEKE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Besit jou ouers 'n eie motor?

8. Besit jy jou eie bed om op te slaap?

9. Besit jou pa sy eie besigheid?

10. Werk jou pa vir 'n werkgewer?

11. Merk af watter van die volgende voordele jou pa by die werk geniet.

<table>
<thead>
<tr>
<th>Item</th>
<th>JA</th>
<th>NEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensioenvoordele</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediese Voordele</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lewensversekering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Werkloosheidsversekering</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Ontvang jy gewoonlik 'n geskenk van jou ouers op jou verjaardag?

<table>
<thead>
<tr>
<th>Item</th>
<th>JA</th>
<th>NEE</th>
</tr>
</thead>
</table>
13. Besit jy enige van die volgende?

<table>
<thead>
<tr>
<th>Item</th>
<th>JA</th>
<th>NEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADIO / BANDSPeler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WALKMAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIETS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIDEOSPELETJIES</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Watter van die volgende koerante ontvang julle elke dag?

<table>
<thead>
<tr>
<th>Koerant</th>
<th>JA</th>
<th>NEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BURGER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPE TIMES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARGUS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Watter van die volgende koerante ontvang julle elke naweek?

<table>
<thead>
<tr>
<th>Koerant</th>
<th>JA</th>
<th>NEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAPPORT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUNDAY TIMES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEEKEND ARGUS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Watter van die volgende tydskrifte ontvang julle elke week?

<table>
<thead>
<tr>
<th>Tydskrifte</th>
<th>JA</th>
<th>NEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUISGENOOT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOI ROSE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARIE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANDER:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
17. Merk af hoeveel ander persone slaap saam met jou in dieselfde kamer.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>GEEN</td>
<td></td>
</tr>
<tr>
<td>EEN</td>
<td></td>
</tr>
<tr>
<td>TWEE</td>
<td></td>
</tr>
<tr>
<td>DRIE OF MEER</td>
<td></td>
</tr>
</tbody>
</table>

18. Merk af in watter van die volgende kamers jy by die huis slaap.

<table>
<thead>
<tr>
<th>Kamers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SLAAPKAMER</td>
<td></td>
</tr>
<tr>
<td>SITKAMER</td>
<td></td>
</tr>
<tr>
<td>KOMBUIS</td>
<td></td>
</tr>
<tr>
<td>ANDER</td>
<td></td>
</tr>
</tbody>
</table>

19. Merk af hoeveel keer jy gedurende die afgelope jaar by een van die volgende besoek afgelê het.

**DOKTER**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>GEEN</td>
<td></td>
</tr>
<tr>
<td>1 KEER</td>
<td></td>
</tr>
<tr>
<td>2 KEER</td>
<td></td>
</tr>
<tr>
<td>3 KEER OF MEER</td>
<td></td>
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</tbody>
</table>

**TANDARTS**

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>GEEN</td>
<td></td>
</tr>
<tr>
<td>1 KEER</td>
<td></td>
</tr>
<tr>
<td>2 KEER</td>
<td></td>
</tr>
<tr>
<td>3 KEER OF MEER</td>
<td></td>
</tr>
</tbody>
</table>

20. Merk af watter van die volgende maaltye julle elke dag by die huis geniet.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>ONTBYT</td>
<td></td>
</tr>
<tr>
<td>MIDDAGETE</td>
<td></td>
</tr>
<tr>
<td>AANDETE</td>
<td></td>
</tr>
</tbody>
</table>
21. Moedig jou ouer(s) / voog(de) jou aan om goed te presteer op skool?

<table>
<thead>
<tr>
<th>HY/SY/HULLE ONTMOEDIG MY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HY/SY/HULLE MOEDIG MY NIE JUIS AAN NIE</td>
<td></td>
</tr>
<tr>
<td>HY/SY/HULLE MOEDIG MY SOMS AAN</td>
<td></td>
</tr>
<tr>
<td>HY/SY/HULLE MOEDIG MY DIKWELS AAN</td>
<td></td>
</tr>
</tbody>
</table>
COOPERSMITH VRAELYS

1. NAAM VAN SKOOL: .........................................................

2. VAN: ...................................... VOORLETTERS: .........

3. OUDERDOM: .......... 4. GESLAG: M V

5. STANDERD: 6 7 8 9 10

AANWYSINGS

Op die volgende bladsy is 'n lys stellings wat op gevoelens betrekking het. Indien 'n stelling beskryf hoe jy gewoonlik voel, maak 'n X in die kolom "Ek is so". As 'n stelling nie beskryf hoe jy gewoonlik voel nie, maak 'n X in die kolom "Ek is nie so nie". Daar is geen korrekte of verkeerde antwoorde nie. Bègin aan die bokant van die bladsy en beantwoord al 25 stellings.

***********

APPENDIX 3

COOPERSMITH INVENTORY

1. NAME OF SCHOOL: .........................................................

2. SURNAME: ........................................... INITIALS:........

3. AGE: .................... 4. GENDER: M F

5. STANDARD: 6 7 8 9 10

DIRECTIONS

On the next page there is a list of statements about feelings. If a statement describes how you usually feel, put an X in the column "Like me". If a statement does not describe how you usually feel, put an X in the column "Unlike me". There are no right or wrong answers. Begin at the top of the page and mark all 25 statements.

***********
1. Things usually don't bother me.
2. I find it very hard to talk in front of a group.
3. There are lots of things about myself I'd change if I could.
4. I can make up my mind without too much trouble.
5. I'm a lot of fun to be with.
6. I get upset easily at home.
7. It takes me a long time to get used to anything new.
8. I'm popular with persons my own age.
9. My family usually considers my feelings.
10. I give in very easily.
11. My family expects too much of me.
12. It's pretty tough to be me.
13. Things are all mixed up in my life.
14. People usually follow my ideas.
15. I have a low opinion of myself.
16. There are many times when I would like to leave home.
17. I often feel upset with my work.
18. I'm not as nice looking as most people.
19. If I have something to say, I usually say it.
20. My family understands me.
21. Most people are better liked than I am.
22. I usually feel as if my family is pushing me.
23. I often get discouraged with what I am doing.
24. I often wish I were someone else.
25. I can't be depended on.