The Impact of a Career Development Programme on Career Maturity and Academic Motivation.

by

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ABSTRACT

The present study addresses the problems experienced by South African youth in making effective, informed career decisions. The goal of this study was to determine the effect of a career intervention programme on the career maturity and academic motivation of Grade 11 learners at Alphendale High School. Furthermore, the relationship between career maturity and academic motivation was explored. Using a pre-post test quasi-experimental design it could be demonstrated that different dimensions of the learners’ career maturity and their academic motivation improved subsequent to the career intervention programme and therefore underscored the value of a career intervention programme.
INTRODUCTION

In South Africa, learners in many previously disadvantaged secondary schools are still not being exposed to comprehensive career counselling or guidance. A myriad of young people are left to their own limited resources to formulate a plan for their future careers. Nearly twenty years ago, Hartman (1988) contended that many black people tended to make career choices on a trial-and-error basis because they had not been taught the necessary skills to make informed career decisions. Despite our new democracy, we are raising yet another generation of South African people who will never realise their true potential. Furthermore, to redress the imbalances of the apartheid past, there are a plethora of bursaries available to previously disadvantaged learners which would enable them to study at higher education institutions. However, due to a lack of career education, many learners are accepting bursaries based purely on financial considerations and thereby choosing careers fields and courses that are entirely unsuited to them with disastrous consequences. An estimated twenty per cent to fifty per cent of students entering university report that they are undecided, and undecided students have been identified as attrition prone (MacKenzie, 1996). In addition, many students are not aware of opportunities available to them as they have not been given the skills and knowledge which would enable them to access this information. Harris (2008) reported in the Sunday Business Times that the government is making an effort to make funding available for tertiary education, though in many cases the message is not being heard or, moreover, those who need funding lack the skills to access it. Tragically, a large sector of South African youth will never be able to utilize their possible prospects. There is clearly a crucial need for effective career education for the youth of South Africa.
Bernard-Phera (2000) states that a call for corrective measures in career counselling has been prompted by the fact that the choice of a career remains one of the most difficult decisions that the adolescent will have to make in his lifetime. It is a process that requires a range of cognitive and behavioural activities necessary for obtaining information about themselves and the environment. Moreover, a meaningful and productive career is not only the single most effective psychological way to attain and maintain contact with reality, but it also provides an economic means to effect significant social change (Crites, 1981).

Although the need for career counselling in South Africa is manifest, it is a complex and intricate process which is vulnerable to a range of problems that impede effective and informed career decision-making. Firstly, training and education is a fundamental requirement necessary for good career decision-making. The Education Department has attempted to address the lack of career guidance and counselling in the schools by introducing career development modules into a new curriculum subject, Life Orientation. This subject, however, is not examinable and, therefore, does not generally seem to be given much value or significance in the school system. Due to rationalisation of teachers, schools often tend to utilise teachers who are not qualified in guidance and career counselling for Life Orientation lessons. These lessons are, therefore, frequently conducted by people with negative attitudes who view this non-examinable subject as superfluous and a complete waste of time. Consequently, learners are still not being trained to determine their career paths in a systematic process.

A second factor impeding effective decision-making is the ethos of indifference and despondency prevalent amongst many young people. The high school dropout rate is
illustrative of a youth that is not motivated to achieve and succeed academically. Furthermore, shortage of educational facilities; high levels of unemployment; lack of familial support and motivation; lack of financial support; and globalization have contributed to a fairly despondent population of learners. Bandura (1986), along with Hackett and Betz (1992) posit that people need proactive behaviour when preparing to enter a particular career. Career guidance and counselling may prove to be a futile exercise if the learners are not active and motivated participants (Bernard-Phera, 2000).

Thirdly, family factors play an important role in the career development of children (Ackermann & Botha, 1998). Parents are an important resource in a good career guidance system, however, Mathabe and Temane (1993) contend that the teacher-parent link in South African schools is very weak. There is often negligible involvement of parents in the career development of their children. On the other hand, there is a high correlation between career status of parents and career identity development of adolescents. The Human Science Research Council (1988) stated that the influence of unrealistic career expectations by parents can make realistic career choice by children difficult.

A fourth factor that has implications for learners making wise career decisions is the role of psychologists. Career counsellors have generally relied on individual interviews as a means to assist people with their career adjustment (Janse, 1982). Holland (1978) contends that interview-orientated approaches have limitations that are indicative of the counselling profession’s inability to keep pace with the needs of a growing, industrialized society. The cost effectiveness of personal and individual based career counselling is certainly questionable. Interest, therefore, has justifiably grown in the field of developing
appropriate and effective career development programmes. Group treatments, for example, courses, seminars, or workshops, seem to be growing in popularity. Lavoritano and Segal (1992) contend that most school-based intervention programmes can bring about positive outcomes in students. Instructional materials are, however, being produced by amateurs and professionals alike, with enthusiastic endorsements by the authors that the particular form of assistance they offer is effective (Janse, 1982). Holland et al. (1981), states that this area of research and development has been neglected by psychologists and needs comprehensive and hard headed evaluation.

Consequently, there is a call for South African psychology researchers to make international theories applicable to the South African context. It is only when theory can be interpreted according to a particular context that it becomes meaningful to the people living within that context (Bernard-Phera, 2000). Langley (1999) states that there is a need for career development research which is based on an African perspective. De Bruin (1999) concurs, for he states that South Africa needs a theoretical model for career development and counselling that can take its unique socio-cultural and socio-economic context into consideration. He claims there are insufficient research initiatives in the field of career development in South Africa. Molefe (2001) argues that findings have suggested that guidance programmes can improve the quality of life of people who would otherwise have been lost to an aversive lifestyle. Kellett (1994) highlights that little evaluation is being done in schools, colleges, universities, and within the communities to demonstrate the contribution of career counselling programmes in helping people make the transition from school to work, or unemployment to employment. He emphasises the importance of feedback regarding the impact of career interventions so that researchers
can adjust their approach to best help their clients achieve their career objectives, and to aid in convincing sponsors that career development programmes are worth investing in. Without thorough evaluation, career development programmes will not receive the support and funding which they require (Bernhardt, 1998). Betz (1991) explains the necessity of evaluating the effectiveness and utility of career development interventions in educational and counselling settings as a means to increase the utility and generalizability of constructive interventions.

The aim of the present study was to evaluate a career development programme which had been developed with a theoretical underpinning that informed the intervention process. Career development programmes have central concepts that form the main thrust of the intervention and the evaluation. The career development programme can therefore be evaluated by examining the impact the programme has on the central constructs or specific indicators. Existing psychological research covers a range of constructs evaluated in career development programmes, for example, social cognitive variables such as self-efficacy, vocational skills self-efficacy, outcome expectations, perceived educational barriers and career expectations (Mc Whirter, Rasheed, & Crothers, 2000); career decision-making self-efficacy (Reese, 2006); academic achievement and self-esteem (Legum & Hoare, 2004); academic motivation (Sutherland, Levine & Barth, 2005); and career maturity (Luzzo & Pierce, 1996; Cassie, 2006). The concept of career maturity plays a central role in career decision-making, indeed, MacKenzie (1996) succinctly states, career maturity may be viewed as one of the goals of career counselling. It was therefore the objective of the present study to evaluate the impact of a career development programme on career maturity.
According to Super’s Self Concept Theory (1957) an individual needs to reach a certain state of readiness in terms of self-concept development. Indeed, this state of readiness, in relation to careers, has been termed ‘career maturity’ (Stead & Watson, 2006). Simply stated, career maturity refers to a person’s readiness to choose a career. It also deals with the individual’s readiness to deal with career-related developmental tasks which he/she may be confronted with on a daily basis (Bernard-Phera, 2000).

Numerous studies have been conducted on career maturity and related concepts in South Africa. MacKenzie (1996), for example, explored the impact of the South African Post-Matric programmes on career maturity and self-efficacy. Her findings reflect positively on the impact of the post-matric programmes. Luzzo and Pierce (1996) investigated the effects of a computer-assisted career guidance system, DISCOVER, on the career maturity of learners. Results indicated significant gains in career maturity among the learners. Bernard-Phera (2000) examined the relationship between career maturity and career decision-making self-efficacy expectations among disadvantaged learners. She found that learners from previously disadvantaged backgrounds had a lower level of career maturity and career decision-making self-efficacy as compared to an ex-model C high school. She challenged researchers to implement programmes that would assist in the enhancement of career maturity and career decision-making self-efficacy of the learner from previously disadvantaged backgrounds (Bernard-Phera, 2000).

Research findings regarding the factors that impact career maturity are fairly inconsistent. According to Barrett and Tinsley (1977); Langley (1989); Khan and Alvi (1983); Helbing (1984); and Putnam and Hansen (1972), self-esteem seems to be an
important factor associated with career maturity. Nevertheless, Rehberg and Hotchkiss (1979) and Lawrence and Brown (1976) were unable to validate this relationship.

Empirical findings concerning gender differences as a factor related to career maturity are also not consistent. Some studies have shown that females tend to be more career mature than males (Chodzinski & Randhawa, 1983; Crites, 1978; Graef et al., 1985) while Guthrie and Herman (1982) showed no conclusive findings. Van Tonder (1988) found that male career mature students had different profiles from females who manifested career maturity. However, Watson, Stead and De Jager (1995) did a study of South African students and found that gender had no significant effect on the students’ career maturity.

Anxiety does seem to be related to career maturity in that the presence thereof implies a general inability to successfully master required developmental tasks (O’Hare, 1990). Varied results were found when studying the relationship between intelligence and career maturity: weak correlations were found between the two constructs by Jordaan and Heyde (1979) and Gribbons and Lohnes (1968). Langley (1989) did not find a correlation, however, Westbrook and Mastie (1974) did find a strong relationship in their research.

Study habits and a positive study and work orientation have consistently been found to be associated with career maturity (O’Hare, 1990). Legum and Hoare (2004) concur for they contend that low career maturity is typically associated with high school dropouts. Super (1983) emphasizes the fact that readiness for making a career choice involves more than career maturity. It also involves motivation. Without motivation an
individual will not make a wise career choice. The question then arises as to whether there is a relationship between career maturity and academic motivation?

As already stated, the central question in this study is to assess the impact of a career development programme on career maturity. It seems expedient, however, to extend the objectives of the study to incorporate the variable of academic motivation into the impact assessment. Moreover, it might be enlightening to verify if there is a relationship between career maturity and academic motivation in terms of trying to improve academic performance and the standard of education achieved by South African youth. This study will, therefore, firstly examine the conceptual framework of career maturity as espoused by Donald Super (1957); John Crites (1978) and Ronelle Langley (1989) whose work forms the core of research in this field. Secondly, this study will investigate the theoretical construct of academic motivation drawing on four motivational process theories, namely, self-efficacy theory; attribution theory, self-worth theory and achievement goal theory. Thirdly, a theoretical explanation and description of the career intervention programme developed for this study will be discussed. Finally, an evaluation of the impact of the career development programme on career maturity and academic motivation will be undertaken.

There is no literature on career maturity prior to Super’s (1957) formulation. Developmental psychology had focused on other kinds of maturity, for example, emotional, physical, social and intellectual maturity. Super (1957), the so called father of career development, questioned the absence of vocational maturity, that is, career maturity. He contended that vocational maturity is not an isolated part of an individual’s development, but forms part of overall development and maturity with social, emotional
and intellectual development (Quinn, 1992). Each of these aspects has their own distinctive characteristics, but their commonality is rooted in the general development of the person (Super, 1957). This general development, together with society’s demands, means that a person is faced with developmental tasks which he/she is expected to master. Super (1957) argued that vocational maturity is manifested in the successful accomplishment of age and stage developmental tasks across the lifespan. He claimed that vocational maturity could be thought of as a vocational age that is conceptually similar to a mental age. A vocational maturity quotient could be determined by the ratio of vocational development to chronological age (Bernard-Phera, 2000).

Super (1957) noted that career planning was a continuous process and not a single choice. His work encourages the monitoring of an individual’s career progression during his life rather than just predicting initial occupational entry.

As represented in Table 1, Super (1980) contended that career development progresses through five developmental or life stages: first, growth stage which includes the age from birth to 14 years. The characteristics of this stage include the development of self-concept, capacity, attitudes, interests, needs, general understanding of the world of work. Secondly, the exploratory stage at 15 years to 24 years incorporates ‘trying out’ through classes, work experience, hobbies. Tentative choice and related skill development are manifest at this stage. Thirdly, the establishment stage which occurs at approximately 25 years to 44 years of age entails the entry-level skill building and stabilization through work experience. Fourthly, the maintenance stage which includes the age from 45 years to 64 years, encompasses the continual adjustment process to improve one’s position.
Finally, the decline stage from 65 years and older includes a reduced output and preparations for retirement.

*Table 1*  Super’s Developmental Stages

<table>
<thead>
<tr>
<th>Stage</th>
<th>Age</th>
<th>Characteristics</th>
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</thead>
<tbody>
<tr>
<td>Growth</td>
<td>birth to 14 years</td>
<td>Development of self-concept through identification with key family and school figures. Development of attitudes, interests and needs associated with self-concept.</td>
</tr>
<tr>
<td>Exploration</td>
<td>15 – 24 years</td>
<td>Choices are narrowed but not finalised. Self-examination, role try-out, and occupational exploration in school, leisure activities, and part-time work. “looking ahead” and “looking around”</td>
</tr>
<tr>
<td>Establishment</td>
<td>25 – 44 years</td>
<td>Trial and stabilisation through work experiences. An appropriate work field is found.</td>
</tr>
<tr>
<td>Maintenance</td>
<td>45 – 64 years</td>
<td>A place in the world of work has been made. Continual adjustment process to improve working position and situation.</td>
</tr>
<tr>
<td>Decline</td>
<td>65+ years</td>
<td>As physical or mental powers decline, work activity changes, and eventually ceases. New roles must be developed.</td>
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Zunker (1981) contends that Super’s identification of vocational developmental stages is probably one of his most important contributions to career psychology. It is a useful construct for describing and assessing the stage of career development of a person irrespective of his/her age or grade at school. It is also a useful tool to assess the person’s readiness to make a career decision.
According to Super (1980), developmental stages are accompanied by vocational developmental tasks as described in Table 2. He explains that the concept of life stages is useful to highlight the fact that developmental tasks tend to dominate at certain ages such as those of childhood, adolescence and early adulthood (Bernard-Phera, 2000). The first developmental task is classified as crystallization which occurs from 14 to 18 years of age. It includes the developing and planning of a tentative vocational goal. The second developmental task, specification, encompasses the ages 18 to 21 years and involves firming the vocational goal. The third task is implementation and occurs at approximately at 21 to 24 years of age. Training for employments and obtaining employment characterise this task. The fourth developmental task is stabilization which occurs from 24 to 35 years of age. The person at this age is generally working and confirming career choice. The last developmental task that Super identifies is consolidation which occurs at 35 years and older and manifests a person’s advancement in career.
### Table 2  Super’s Vocational Developmental Tasks

<table>
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<tr>
<th>Vocational Developmental Tasks</th>
<th>Age</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystallisation</td>
<td>14-18 years</td>
<td>Cognitive processing period of formulating general vocational goals through awareness of resources, contingencies, interests, values, and planning for the preferred occupation.</td>
</tr>
<tr>
<td>Specification</td>
<td>18 -21 years</td>
<td>A period of moving from tentative vocational preferences toward a specific vocational preference.</td>
</tr>
<tr>
<td>Implementation</td>
<td>21 – 24 years</td>
<td>A period of completing training of vocational preferences and entering employment.</td>
</tr>
<tr>
<td>Stabilisation</td>
<td>24 – 35 years</td>
<td>A period of confirming a preferred career by actual work experience and use of talents to demonstrate career choice as an appropriate one.</td>
</tr>
<tr>
<td>Consolidation</td>
<td>35+</td>
<td>A period of establishment in a career by advancement, status, and seniority.</td>
</tr>
</tbody>
</table>

Career maturity will be acquired when developmental tasks are successfully accomplished within a series of life developmental stages (Bernard-Phera, 2000). In other words, career maturity will be a person’s readiness to cope with the developmental tasks society expects him/her to cope with because of his/her being at a certain stage of biological and social development (Super, 1990). Vocational or career maturity is therefore a normative concept in that it refers to the correspondence between an individual’s vocational decision making and that which could be expected of him/her at that particular developmental stage. An individual’s career maturity can vary: it can be
constant; emerging; degenerating; or he/she can exhibit constant immaturity; or if planning, exploration, decision-making and acquiring information are encouraged, career maturity development can be accelerated (Quinn, 1992). Career maturity during adolescence has been found to be correlated with a number of significant variables measured later in life. O’Hare (1990) stated that Super found a relationship between adolescent career maturity and later career satisfaction, career success, utilization of assets, educational and occupational level and realism of choice. Career development and maturity are processes that occur during an individual’s life span.

Super refined his model of career maturity into its existing form in 1983 (see MacKenzie, 1996). A person’s career maturity or the readiness to make a career choice can be measured by the following five dimensions: planfulness; exploration; information; decision-making; and reality orientation as represented in Table 3.

The first dimension, planfulness is an awareness that educational and vocational choices must be made eventually and an inclination to prepare to make these choices (Savickas 2001). Planfulness also requires reflection upon past experiences and anticipation of the future.

The second dimension, exploration, involves querying, use of resources and participation (Betz, 1988). In other words, a person focuses on inquiring about oneself and one’s situation. Various aspects are examined: affiliations with institutions, family, school, peer groups, or work associates; attitude towards available resources and willingness to utilise them (Super, 1984).

Information, the third dimension in Super’s career maturity model, incorporates the collection and processing of information in relation to the world of work the preferred
occupational group and other life-career roles. Individuals are also made aware of the fact that they need to reassess their abilities, interests and values in the constantly changing work environment (Frade, 2003).

The fourth dimension, decision-making, is viewed as a cognitive rather than attitudinal component of career maturity (MacKenzie, 1996). The concern here is of the person’s ability to apply knowledge and insight into the business of career planning and decision making.

The fifth dimension, reality orientation comprises the following elements: self-knowledge, realism in self and situational assessment, consistency of career role references, crystallisation of self-concepts and career goals, interests and objectives and work experience. Table 3 summarises Super’s (1983) extended model of career maturity.
### Table 3  Super’s Model of Career Maturity

<table>
<thead>
<tr>
<th>I. Planfulness:</th>
<th>Autonomy</th>
<th>control of career provides person with power to plan</th>
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<tr>
<td></td>
<td>Time perspective</td>
<td>reflection on past experiences and anticipating future ones</td>
</tr>
<tr>
<td></td>
<td>Self-esteem</td>
<td>determines the person’s worth and the control he will have over future goals</td>
</tr>
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</table>

| II. Exploration:         | – inquiring about oneself and situation |
|                         | – querying various life-career roles pursued |
|                         | – explores attitude towards resources and willingness to utilise them |

| III. Information:        | World of work | person’s need to acquire information about the world of work |
|                         |             | coping behaviours |
|                         |             | economic trends and change |
|                         |             | access and means of entry |
|                         | Preferred Occupational Group | education and training |
|                         |             | entry requirements |
|                         |             | duties, methods, materials and tools |
|                         |             | advancement, transfer |
|                         |             | working conditions and rewards |
|                         |             | lifestyle |
|                         |             | future prospects |
|                         | Occupational and other life-career roles | relative importance of work |
|                         |             | role relationships |
|                         |             | role for self-realisation |

| IV. Decision-making:     | – personality traits essential for career development |
|                         | – requires knowledge and commitment to implement principles of decision-making |

| V. Reality Orientation:  | – self-knowledge |
|                         | – realism in self and situational assessment |
|                         | – consistency of career role preferences |
|                         | – stabilisation in major life roles |
According to this model an individual must be free to plan his own future using what he has learnt from the past to anticipate the future. Quinn (1992) identifies a crucial aspect of career-decision making: if the individual’s self-esteem is low it is possible that he will not be able to plan his future independently. Educators and parents play a critical role in establishing and cultivating a child’s self-esteem. O’Hare’s (1990) findings support this notion, for she states that all theories of maturity emphasize in one way or another the importance of self-esteem resulting from a positive, congruent, realistic self-image. A primary source of a positive self-image would be environmental factors such as primary caretakers.

To facilitate the career counselling process it became necessary to be able to measure a person’s career maturity. Super and his colleagues used the model of career maturity and developed the Career Development Inventory (CDI). The CDI provided an aggregate of four scales that measured the attitudinal and cognitive dimensions. Important findings were achieved through the use of the CDI in United States and Britain (Super, 1990). They include the following: slight gender differences, favouring females, with regard to career maturity; salience of the work role important for determining career maturity; no significant differences on results between black and white people; CDI scores increased during first two year of college, but not in the senior years, possibly due to a fear of transition; and no significant relation between socio-economic status and career maturity, except for a small effect during the last years of high school. Watson (1984), however, has shown a relationship between socio-economic status and career maturity in South Africa.
In terms of critically assessing Super’s concept of career maturity, Bernard-Phera (2000) contends that it is seen as one of the major contributions to career development theory. Indeed, Rojewski (1994), declares that the psychological construct of career maturity is critical in examining career development. However, in view of the nature of the various dimensions of career maturity, Heidema’s contention that career maturity is closely related to general personality, is understandable (MacKenzie, 1996). Raskin (1998) agrees, for she states that career maturity is a useful construct for studying adolescents, but it has limits. Career counsellors need to integrate personality and decision-making style into research on career maturity, for this developmental construct is described as a state, but at some point in adulthood becomes a trait (Raskin, 1998).

Stead and Watson (2006) comment that the concept has been criticised for its failure to consider an individual’s context and for its value-laden connotations. Individuals from rural or poorer communities are not exposed to as many different exploratory learning experiences as wealthier children. The timing and sequence of transitions in career behaviour would be more accurately reflected on historical, cultural and macroeconomic contexts. It seems that career maturity as a normative construct fails to accommodate the fact that changing times reflect the norm (Stead & Watson, 2006).

Leong and Serafica, (2001) claim Super paid scant attention to the impact of culture and gender. Rojewski (1994) found that educationally disadvantaged African-American males were more likely to display career immaturity in career decision-making than other population groups. Leong (1991) found that Asian students scored lower than their white counterparts on career maturity. Frade (2003) explains that these results could be attributed to English language proficiency; and the use of ethnic groups that are not
comparable with respect to socio-economic status and geographic location. Schnorr and Ware (2001) contend that the career maturity measures were constructed, selected, and standardized by using a white, middle-class perspective. Nevertheless, Baloyi (1996) found that there were no differences in the levels of career maturity of black and white high school pupils at private schools in South Africa. Furthermore, Herr (1997) argued that research has been conducted which refutes gender, ethnic and socio-economic bias in Super’s theory.

Patton and Lokan (2001, p. 44) sum up the debate succinctly: the career maturity construct has itself matured to a point where it may change in name or form to better reflect the rapidly changing world of work in the 21st century, but it would be surprising if many of the general principles proposed by Super did not remain central to any reformulation offered. Indeed, this is evident in the work of John Crites.

John Crites, a student and later a colleague of Super, coined the term career maturity from the concept vocational maturity. O’ Hare (1990) contends that, while Super was viewed as the father of vocational development, it would seem appropriate to see Crites as the godfather of career maturity because of his inordinate interest in and development of models to explain and measure the concept. He started formulating his theory on career maturity in 1961 while Super and his colleagues worked on the Career Development Inventory. Crites’ approach to career psychology can be described as more pragmatic than Super’s and has been used extensively by practitioners. Crites argued that career maturity cannot be measured based on the responses that an individual gives to developmental tasks or according to life stages (Bernard-Phera, 2000). He claimed that by using typical behaviours or developmental tasks as criteria for measuring vocational
maturity, absolute or relative indexes were achieved with potentially conflicting interpretations (MacKenzie, 1996). He argued that different developmental stages impose different tasks and the measure would therefore lack consistency.

Crites claimed that career maturity develops over a period of time and is representative of a person’s degree of career development (MacKenzie, 1996). He defined career maturity as two independent measurable constructs, firstly, the degree of vocational development and, secondly, the rate of vocational development. The degree of development refers to the maturity that the person has achieved in terms of his career behaviour in relation to his life stage. Rate of career development refers to the person’s career behaviour in relation to his peers.

By 1965, Crites had formulated his career maturity model which encompassed both the content and process of career decision making. It was organised hierarchically as depicted in Figure 1. The upper levels of the hierarchy represent the overall degree of career development. This is analogous to the general intelligence factor found to characterise mental ability (MacKenize, 1996). The second level consists of four major groups, namely, two career choice content and two career choice process factors. Content of career choice simply means the occupation the adolescent intends to enter. In contrast, the process of career choice refers to the decisions which individuals make before declaring which occupations they intend to enter. It also involves certain attitudes and competencies that mediate the choice process and are part of it. Attitudes are the conative, dispositional variables in career decision making (O’Hare, 1990). Competencies are the cognitive, intellectual variables. Together these attitudes and competencies are the mechanisms by which the career decision-making process unfolds
Crites (1981) developed a means to measure career attitudes (Career Attitude Scale) and competencies (Career Competence Test) that was published as the Career Maturity Inventory (CMI) in 1973 and which he revised in 1978. He posited that this measure was formulated from his hierarchical model of career maturity. Crites (1978) suggested that both developmental tasks and behaviour should be included in a measure of career maturity. CMI has been used widely, but Betz (1988) observed that due to its popularity the CMI has received a fair amount of criticism with regard to low reliabilities and inadequate evidence for all types of validity. Quinn (1992) contends, however, that the CMI is rated as one of, if not the best, measure of career maturity available.

The Career Attitude Scale is used to study career development; to screen for career immaturity; to assess guidance needs; to evaluate career education; and for assessment in career counselling. According to Crites (1978) the Career Competence Test can be used for the same purposes as the Attitude Scale. Crites (1978) contended that the most effective use of the CMI is when the Attitude Scale and Competence Test are combined to provide a graphic representation of the person’s CMI profile.

Langley (1989) merged the work of Super and Crites to establish the basis for her career maturity theoretical framework. She has contributed significantly to understanding the concept of career maturity (Bernard-Phera, 2000). She developed a comprehensive model of career development whereby she suggests eleven universal career development tasks have to be completed in every life stage in order to make successful and appropriate career decisions. Langley (1989) incorporates the construct,
career maturity, into this model and does not isolate it as a separate concept. The eleven facets she identifies are: needs; life roles; values; career interests; career maturity; decision-making; career information; integration of self-knowledge and career knowledge; career choice; career planning; and a group of relevant factors, for example, personality, intelligence, study habits and self-concept.

According to Quinn (1992), Langley cites the following factors as having an influence on career maturity: first, an increase in age is accompanied by an increase in career maturity. Super (1983) had already noted, however, that there are great individual differences with regard to these age-related increases. Watson (1984) concurs with Super, for this finding was confirmed in his study done with Coloured pupils. Secondly, the higher the grade at school, the more mature the individual will be with regard to his career. Thirdly, culture and socio-economic status will impact on career maturity. Due to a history of discrimination in education in South Africa, previously disadvantaged schools have not established effective career development programmes. Furthermore, many South African schools simply lack the economic means, irrespective of race or culture, to have professional career counselling services. Fourthly, the more intelligent the individual is, the more mature he/she is with regard to his/her career.

Langley (1989) worked with Super and his international research team, and consequently translated a range of Eurocentric theories and instruments for use in the South African context, for example, she translated the CMI into the Career Development Questionnaire (CDQ) to accommodate cultural differences in South Africa. This instrument was utilised in the present study. The CDQ consists of the following five
subscales: self-knowledge; decision-making; career information; integration of self-knowledge and career knowledge; and career planning.

**Self-knowledge** implies the awareness of certain aspects, that is, needs, life roles, work values and interests. Needs entails the identification of internal or external needs and the satisfaction of those needs. It would include the type of environment they would want to work in and the type of financial position or status they would want to achieve. Langley (1989) asserted that this is pertinent to the person’s responsibility to identify his/her career needs at a specific time of life.

Langley (1989) identified five life roles: student, worker, homemaker, leisurite and community member. The importance of each role will differ at each stage in a person’s life and, furthermore, one or more roles could be more developed while others are neglected or overlooked. The unsuccessful integration of different roles could lead to interpersonal conflict as, for example, in the case where parents expect more from the child in respect of certain roles with which the child is unable or unwilling to comply (MacKenzie, 1996). Intrapersonal conflict may also result from the adolescent trying to play too many roles simultaneously (Langley, 1989).

Values are important in determining the person’s work values and the kind of job-satisfaction that he will experience from a given working environment (Bernard-Phera, 2000). Some people derive satisfaction from the work itself whilst others work for money to spend on other activities.

Langley (1989) emphasized the importance of career stereotypes. As Holland conceived, all people in a specific career present corresponding personalities that lead to
two or more combinations of the following: Realistic (R); Investigative (I); Artistic (A); Social (S); Enterprising (E); and Conventional (C).

There are other relevant factors such as the person’s childhood environment, energy levels, intelligence, study habits, self-concept, interpersonal relationships, level of qualifications, subject and symbols, and environmental variables, such as culture and economic standing. It is important for the individual to have insight into the relevant factors which may play a role in his specific circumstances.

**Decision-making skills** are developed through the aid of the following seven components: firstly, recognizing the need to make decisions; secondly, evaluation of self and goal setting; thirdly, finding alternatives; fourthly, weighing alternatives; fifthly, choosing alternatives with the highest value; sixthly, going into action; and seventhly, experiencing the consequences. Langley (1989) asserts that the task of acquiring these skills entails the individual’s ability to make a planned and informed career decision. The person evaluates himself/herself in terms of his/her developmental stage and sets a goal aimed at making a career choice (MacKenzie, 1996). The person then weighs up alternative choices, makes a value related choice and has the opportunity of re-evaluating the choice.

**Career information** is required during the different stages of a career development process. Langley (1989) states that it is very important for a person to have the ability to actively seek out career information. People need to be encouraged to consult libraries, reference books, computer programmes and the internet. They need to gather information about the different career fields and within that, information on particular jobs, training requirements, admission requirements, the salary and prospects.
Langley believes that effective career decision-making cannot be made unless the person has insight and knowledge to integrate self-knowledge and knowledge of careers together (Bernard-Phera, 2000). Bernhardt (1998) declares that integration of self- and career-knowledge probably poses the greatest problem for students as it requires mastery of each type of knowledge separately prior to the integration.

Career planning is a necessary process to be followed after a career choice is made. It involves gathering information about training institutions. In addition, it is important that a person is to be prepared for the changing aspect of the world of work.

Langley’s five components of career maturity, which are linked to developmental tasks, are indicated in *Table 4.*
Table 4 Relationship between career maturity and career tasks according to Langley’s integrated career development approach.

<table>
<thead>
<tr>
<th>COMPONENTS OF CAREER MATURITY</th>
<th>TASKS IN THE INTEGRATED DEVELOPMENTAL APPROACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-knowledge</td>
<td>Needs</td>
</tr>
<tr>
<td></td>
<td>Life roles</td>
</tr>
<tr>
<td></td>
<td>Work values</td>
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<tr>
<td></td>
<td>Occupational interests</td>
</tr>
<tr>
<td></td>
<td>Other relevant information</td>
</tr>
<tr>
<td>Decision-making</td>
<td>Decision-making</td>
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<tr>
<td></td>
<td>Occupational choice</td>
</tr>
<tr>
<td>Career information</td>
<td>Occupational information</td>
</tr>
<tr>
<td>Integration of self-knowledge with career knowledge</td>
<td>Integration of self-knowledge with occupational knowledge</td>
</tr>
<tr>
<td>Career planning</td>
<td>Career planning</td>
</tr>
</tbody>
</table>

Every dimension of career maturity as listed in the left-hand column of Table 4 implies that one or more of the compatible tasks listed on the right-hand side has been successfully undertaken (Langley, 1989).

De Bruin (1999) notes that Langley’s comprehensive model of career development highlights the important aspects of the career choice process. Her approach has not been in existence long enough to have generated substantial amounts of research. O’Hare
(1990) investigated the psychometric properties of the CDQ and established that there is sufficient construct validity. A comprehensive discussion on the psychometric properties of the CDQ will follow in the Methods section.

The second construct under examination in the present study is academic motivation. There is no known research where the correlative relationship of career maturity and academic motivation is explored, however, research has sought to explore the cross-cultural differences in academic motivation; the measurement of academic motivation and the impact of programmes on academic motivation.

Komarraju, Karau and Ramayah (2007) conducted an interesting investigation into the cross-cultural differences in academic motivation. Malaysian students scored significantly higher than U.S. students on the following motives: thinking, competing, desire for self-improvement, facilitating and debilitating anxiety, as well as disliking and feeling discouraged about school. U.S. students scored higher than Malaysian students on the demanding motive. It seems that family dynamics, selection processes and perceptions of the relative importance of effort and ability may all play a role in creating these cultural differences in academic motivation. South African researchers conducting research in a multi-cultural South African society need to constantly take cognizance of possible cultural factors and differences at play.

Moen and Doyle (1978) distinguish between three principal types of instruments to measure academic motivation: single general motivation measures, single specific measures, and multiple measures. Each kind has its own peculiar strengths and weaknesses. As outlined in the method section, the present study adopted a single general motivation measure.
Sutherland, Levine, and Barth (2005) investigated the impact of an informal career education programme, Career Trek, on academic motivation and self-esteem with ‘at-risk’ students. The programme contributed positively to their perceptions of their own abilities, self-esteem and school motivation. Martin (2005) assessed a youth enrichment programme on academic motivation as effective. He identified five facets of the programme that contributed to its effectiveness: first, the optimistic expectations held by adults; second, the programme’s focus on mastery; third, the climate of cooperation and the ensuing sense of belonging; fourth, the positive relationships that developed amongst students and between students and adults, and fifth, embedding school-related elements within a broader enrichment programme. It is interesting to note that broad based enrichment programmes, that are not specific to academic motivation, seem to impact positively on student’s academic motivation. These programmes help young people feel valued; develop supportive relationships; establish productive places for the individual in a group; and foster individuals’ usefulness to others directly. Commensurate with this information, the present study’s career development programme sought to meaningfully embed these factors into the entire programme, so academic motivation was not specifically inherent in the programme, but quite consistent with it.

Psychologists have spent considerable effort trying to construct theories of motivation, particularly in the academic context (Seifert, 2004). According to Seifert (2004), there are currently four prominent theoretical contributions of motivational processes, namely self-efficacy theory; attribution theory, self-worth theory and achievement goal theory.

According to self-efficacy theory, a person’s belief that he is able or unable to perform the task at hand is correlated with achievement-related behaviours (Seifert,
Learners who are not confident or perceive themselves incapable may avoid tasks that are seen as challenging or difficult, while those who are highly efficacious will be more willing to face difficult or challenging problems. In South Africa many young people, from disadvantaged backgrounds, seem to be facing inordinate challenges in their career-decision making process. In order to enhance academic motivation therefore, it would be crucial for the career development programme to instil in the learners a sense of belief in themselves and their ability to surmount the difficulties they will encounter. Self-esteem seems to be a central factor in enhancing career maturity and academic motivation.

According to attributional theory, people’s perceptions of their behaviour will influence how they behave in the here-and-now and on future occasions (Bernard-Phera, 2000). This means that people’s judgements of the causes of their performances will have motivational effects. Take for example the case of a learner passing a test: this event is called an outcome. An emotional reaction will always follow an outcome. An attribution, in other words, an explanation, occurs after the emotional reaction. An attribution in this example could be ability, or effort. Significantly, Bandura (1993) notes that self-efficacy may influence the attribution formed. Highly efficacious people will ascribe the outcome to their own agency, while less confident individuals will attribute the outcome to inability. The attribution has characteristics and it is the learner’s perceptions of the characteristics of the attributions, for example, ability or effort, that will actually influence motivation through emotions. These characteristics occur on three dimensions: locus of causality, stability, and controllability. How the learner attributes causes in terms of these characteristics gives rise to emotions and those
emotions have behaviour consequences. Referring to the example of passing a test, if the learner attributes success to internal, controllable causes, then he is more likely to feel pride, satisfaction, confidence and have a higher sense of self-esteem. Consequently, it is highly probable that the learner will choose to work on more difficult tasks, persist longer in the face of failure and produce work that is of a higher quality (Seifert, 2004).

Attribution theory gives further evidence of the pivotal role self-esteem has on motivation. It seems self-esteem underpins the perceptions a person makes and therefore consequent behaviour. To enhance academic motivation in learners through the career development programme it seems essential that the learners are encouraged to believe in themselves.

The self-worth theory of achievement motivation attempts to explain the motivation of students as attempts to maintain or enhance self-worth (Seifert, 2004). According to Covington (1984), there is a belief in Western culture that self-worth is inherently connected to performance. In essence, what counts is being able to do really well. The student is motivated by a desire to protect ability perceptions by proving one’s self or alternatively avoiding appearances of incompetence which would result in failure-avoidant behaviour. The student uses defence mechanisms to protect their self-worth by effort withdrawal, procrastination, or maintaining a state of disorganization (Seifert, 2004). These behaviours are counter to the pro-active stance required for an effective career decision making process.

Achievement goal theory posits that students’ academic motivation can be understood as attempts to achieve goals (Seifert, 2004). In other words, students’ behaviours are a function of desires to achieve particular goals. Schunk (1991) explains that goal setting
is hypothesized to be an important cognitive process affecting motivation. Furthermore, goals that incorporate specific performance standards raise efficacy and motivation better than general goals. The adolescent is not able to set career goals if there is not effective career guidance. Schoolwork can seem meaningless. Lewis (2004) notes that perceived irrelevance of courses in the everyday lives of students can account for poor motivation. Seifert (2004) concurs for he postulates that certain students may be work avoidant if they feel capable of doing the work but see no reason for doing it. They find little challenge, stimulation, satisfaction or meaning in the work they do and, consequently, only do enough work to get by. The question that begs investigation is whether career mature students would understand and accept the value and find meaning in schoolwork more than a student without career maturity? Does the career mature student not see schoolwork as a means to achieve their career aspirations and thereby not be work-avoidant? Legum and Hoare (2004) ascertain that as students begin to connect their academic accomplishments with the expectations of the world of work they are more likely to understand the significance of remaining in school and may make more prudent decision concerning their short- and long-term futures.

The central notion of self-esteem asserts itself again. Bernard-Phera (2000) postulates that self-beliefs of efficacy determine people’s actions, their choice of activities and the effort they will expend to achieve these goals. She explains that people with self-doubt will not have enough courage to pull through their goals, while those who have strong beliefs in their capabilities will put in enough effort to reach their goals (Bernard-Phera, 2000).
Furthermore, Schunk (1991) found that self-set goals also promote self-efficacy. It is essential that parents allow their children the right to take ownership for setting their own career goals.

From the preceding arguments, it seems clear that self-perceptions of competence and a sense of agency are central to understanding motivation. Seifert (2004) posits that recent research has shown that perceptions of competence and control are predictive of learning goals, performance goals and work-avoidant pursuit.

A problem with goal-setting research is that it studies effects over short periods (Schunk, 1991). This type of research can study basic processes, but it does not fully capture the nature of academic motivation. Academic goals are often long term, for example, attain a degree at university. Although research over a long term seems preferable it is beyond the scope of the present study which aimed at examining the impact of a career development programme.

**The Career Development Programme:** The design phase of an appropriate and useful programme involves the planned and systematic administration of scientific, technological, theoretical, and practical knowledge (Thomas & Rothman, 1994). According to Bernhardt (1998), requirements of programme design for intervention research differ according to the particular model of planned change dominating the research. For the present intervention programme, it was necessary to establish design goals and objectives; apply and refer to well-established theories and research; and formulate a curriculum according to particular requirements and methodologies. Each of the requirements listed above will be dealt with in that order.
The primary goal is to design a career maturity and academic motivation enhancement model based on sound theoretical principles. The programme should increase levels of career maturity and academic motivation in a previously disadvantaged South African high school in order to facilitate career decision-making and academic commitment by incorporating information relating to: self-knowledge; decision-making; career knowledge; integrating self-knowledge and career knowledge; planning and taking ownership; and academic commitment. The objectives of the programme design are, therefore, to indicate that the results of the measurement instruments are positively associated with career maturity and academic motivation. Quantitative evaluation, including pre- and post-test measurements, should reflect the following distinguishable factors: an increase in self-knowledge; improved decision-making efficacy; an increase in career-knowledge; skills in integrating self-knowledge with career-knowledge; improved planning skills and evidence of taking ownership of process; and improved academic commitment. Furthermore, gains on learners’ academic motivation should be evidenced while a strengthening of the relationship between the learners’ academic motivation and career maturity should manifest itself.

An extensive discourse has already been completed on the constructs of career maturity and academic motivation, and therefore, it is evident that the theoretical foundations of the career programme are consistent with Super’s, Crites’ and Langley’s notion of career maturity. Four main theories, namely, self-efficacy theory; attributional theory; self-worth theory; and achievement goal theory provided the theoretical framework for academic motivation. Commensurate with these theories, enhancement of self-esteem and a sense of agency, are embedded tacitly in the programme. The career
development programme is in line with Schunk’s (1990) finding that self-set goals promote self-efficacy for learners are exhorted to take ownership of their career-decision making process. While it was important to include contents that would motivate, empower, and instil in learners a sense of agency, the researcher tried throughout to remain sensitive to the targeted groups’ perceptions, experiences, and outcome expectations. Stead and Watson (2006) raise the important point that in African and South Asian countries career choices are often a matter of fitting into what the family wants, and what the family needs. Stead and Watson (1996) do however advocate that adolescents need to respond creatively to their environment in ways to enhance their career development. Coupled to this, there are a myriad of opportunities available to black South African young people. While the contextual notions of career development go beyond the parameters of this study, the reality of the learners’ environment was taken into cognizance in the development of the career intervention programme. See Appendix A for career intervention programme entitled, “Finding the Fit”.

The programme consisted of five phases:

**First phase of programme:** Bernhardt (1998) postulates that the researcher must take into account when categorising and ordering the information the most relevant and important aspects that he/she wishes to impart to the targeted population. Since person-environment integration is of utmost importance it was deemed appropriate to begin the programme focussing on discovering self-knowledge. This is in accordance with Super’s (1957) notion of exploration; Crites’s (1978) concept of involvement in career choice and Langley’s (1989) view of self-knowledge. The career programme’s strategy of matching oneself to suitable occupations is what Super termed *specifying a choice* (Savikas, 2001).
Holland (1985) contended that interest and aptitude are relatively stable and that congruence or fit has to be attained between the person and the occupation. Indeed, Holland (1985) was of the opinion that career choice was an expression or extension of personality into the world of work. In other words, an expression of a vocational preference is ultimately an expression, in occupational terminology, of the kind of person she/he really is. Super (1984) posited that in entering an occupation a person seeks to implement a concept of him/herself. It follows that it is essential for a person to have a sound self-knowledge in order to make a decision that will direct him/her into an occupation which will allow the playing of a role appropriate to the self-concept. The first phase of the programme included covering aspects of the personality of the learners; their vocational interests; their values; and their abilities.

**Personality:** The Human Science Research Council’s **Self Directed Search** psychometric instrument was used to facilitate the process of learners discovering aspects of their personality. The Self Directed Search was originally developed by Holland (1985). He identified six different types of personalities in relation to the world of work, namely, realistic; investigative; artistic; social; enterprising and conservative. There can be no one simple score due to the complexity of people. The learners were encouraged to use two or three codes as a starting point in their self-discovery process.

**Vocational interests:** The greater clarity an individual has with regard to his interest, the greater readiness there will be to make a career choice (Langley, 1989). Interests were discussed and a worksheet was completed. Gregory (1992) contends that the purpose of interest inventories is to identify a person’s vocational and related interests in order to
facilitate career choices. A good fit between personal interests and the identified interest patterns of an occupation promotes success in and satisfaction with occupational choice. If time limitations and financial constraints could be overcome, the computerised Career Mentor programme would be very valuable tool to help the learners discover their current interests.

Values: Lindhard and Dlamini (1992) explain that a value is an enduring, personal belief that certain life goals and behaviour are preferable, for example, material wealth; aesthetic values; status or security. During late adolescence an individual starts to question existing values in order to develop his or her own unique philosophy of life (MacKenzie, 1996). De Bruin (2001) contends that values may be considered as important motivators of behaviour. People who do not know what their values are will find that they are drifting (Lindhard & Dlamini, 1992). A value worksheet was completed to assist the learners’ in the process of discovering their own personal values. Discussion groups were set up to consolidate the process.

Abilities: The learners are assured that abilities are not based on intelligence only. Lindhard, Dlamini and Barnard (1994) explain that intelligence is more than the ability to learn and to use knowledge. They state that ability includes such things as leadership and practical and artistic qualities. Learners are encouraged to examine their past performances where they achieved well and easily. Abilities can include verbal fluency; numerical ability; practical ability; methodical; artistic and creative; social competence and kinaesthetic ability. Different careers require specific combinations of abilities. Learners were given the opportunity to work through an ability worksheet. The process
of self-discovery was consolidated by writing an essay about what they had learnt about themselves.

**Second phase of programme:** According to Langley (1989), it is essential to have sufficient information to make sound career decisions. Holland (1985) stated that people without proper knowledge of different jobs, make poorer career choices than those who are better informed, therefore, the second phase of the intervention programme was to impart knowledge about the world of work. This phase was commensurate with Super’s concept of information; Crites’s notion of independence in career choice; and Langley’s view of career knowledge. According to statistics supplied by the Department of Labour there are 1 133 kinds of jobs (Lindhard et al, 1994). To unpack the plethora of possible careers, learners examined various career fields. Furthermore, learners were shown where to access different sources of career information, for example, career books and literature; the internet; people working in the field; educational institutions; Department of Labour; and Career Expos.

**Third phase of programme:** The structures of higher education and training institutions and their admissions criteria; learnerships; and funding the process were examined. Furthermore, skills needed for researching qualifications required for particular careers was also covered. The targeted learners come from disadvantaged backgrounds and therefore it was viewed as imperative to build into the programme information regarding financial assistance in order to cultivate feelings of hope, interest, motivation and meaningfulness. Learners were informed about organisations, governmental initiatives and institutions who offer financial assistance and bursaries. This aspect of the
programme was in accordance with Super’s notion of reality orientation; Crites’s view of compromise in career choice; and Langley’s concept of career planning.

**Fourth phase programme**: This phase of the programme included integrating knowledge of self and knowledge of careers. Super and Langley emphasized the importance of being able to synthesize career information and self-knowledge, whereas Crites did not include this dimension in his assessment of career maturity (O’Hare, 1990). According to O’Hare (1990), this was Super’s greatest criticism of Crites. This is commensurate with Super’s notion of decision-making; Crites’s view of orientation to career choice and Langley’s concept of integration of self-knowledge and career knowledge.

**Fifth phase of programme**: The learners may have mastered the first four phases of the programme and developed self-awareness, career and educational awareness, but they may still be unable to make an effective decision. Bernard-Phera (2000) argues that the choice of a career remains one of the most difficult decisions that the adolescent will have to make in his lifetime. The programme, therefore, dealt with an eight point plan for decision-making and the empowering consequences of taking ownership of the entire process. This aspect of the programme was in line with Super’s notion of planfulness; Crites’s concept of decisiveness in career choice; and Langley’s view of decision-making. Although effective decision making and taking ownership of the process was dealt with at the end of the programme, the point that they, the learners, are responsible for their own futures, and the decisions they make will have an enormous impact on their destiny was embedded in all the modules and emphasized throughout the programme. Autonomy is an important component of Super’s (1957) planfulness dimension. Super
viewed autonomy as essential for he believed that planning can only be undertaken if a person believes he has control over his career (MacKenzie, 1996). Powell and Luzzo (1998) claim that recent research shows that higher levels of career maturity are likely to be linked with an attributional style that suggests a sense of control over and responsibility for career decision making. In the Career Pattern Study, it was identified as acceptance of responsibility (Super, 1983). Parents who bully their children into choices need to take cognizance of this fact. Linked to this issue, is the need for self respect, because if the person doubts his own self worth he will be unable to believe in his ability to control his own career (Super, 1983). The individual ought to learn how to change his circumstances if this allows personal growth towards positive career development (MacKenzie, 1996). This is an important factor for many South African adolescents who originate from very difficult, impoverished environmental circumstances.

The outlined phases of the programme, that is, self-knowledge; information about the world of work and careers; information about education and training; integrating knowledge of self and knowledge of careers; decision-making; and taking ownership of the process; were captured in learners’ journals; information sheets; worksheets and forms, completed and received during the programme. These documents were compiled into a “Finding the Fit” book by each learner and kept as resource material.

The career programme was targeted specifically at Grade 11 learners, firstly, for the reason that they are generally 16 years of age and fall in the developmental stage of Super’s (1957) exploration stage. Self-examination, role try-out, and occupational exploration in school, leisure activities, and part-time work incorporate this stage.
Exploration stage links with the first developmental task which is classified as crystallization. Developing and planning of a vocational goal through awareness of resources, contingencies, interests and values form this task. Career maturity will be acquired when developmental tasks are successfully accomplished (Super, 1957).

Secondly, the Grade 12 academic year is so short and so pressurised; teachers do not want to release learners from lessons due to time constraints to complete syllabi. Grade 11 learners have the necessary time to work effectively through the career decision-making process and avoid crisis decision-making. Thirdly, there is still time for learners to remediate academic achievement and augment extra-mural activities required for curriculum vitae; and finally, there is enough time to access information on financial assistance and to process applications.

The specific hypotheses of this study were that, firstly, the career development programme would enhance the career maturity and academic motivation of Grade 11 learners, and secondly, it was hypothesised that the career development programme would significantly strengthen the correlation between the constructs career maturity and academic motivation.

The hypotheses were tested by using a pre-post test quasi-experimental design. The independent variable is the career development programme as the intervention and the dependent variables are career maturity and academic motivation.
METHOD

Sample

The intervention took place at Alphendale High School where the learners originated from previously disadvantaged ethnic groups. Two grade 11 classes, comprising 65 learners were exposed to the career intervention programme and formed the experimental group. The second group of 30 grade 11 learners (one class) formed the control group and did, therefore, not attend the programme. The relatively small sample does limit the degree to which results of the present study can be generalized. Nevertheless, Martin (2005) states that intervention research does not typically involve large numbers and therefore, it could be argued that this sample is not unusually small.

Of the 30 learners drawn for the control group, responses from 24 were only used, as six had not completed the post-test measurement due to absence from school. Seven learners were male and seventeen learners were female. Their age range was 15 to 18 years of age and their mean age was 16.62 years. Of the 65 learners who formed the experimental group, only 58 attended all five sessions. Seventeen learners were male and 41 learners were female. Their age range was 14 to 20 years of age and their mean age was 16.45 years.

The learners belonged primarily to the coloured and black ethnic groups. Prior to the study they had only been exposed to minimal career guidance. Learners willingly agreed to participate in the research project as they felt that it would be to their benefit. Confidentiality was not a major concern for them.

Langley (1989) asserts that more intelligent people are higher in career maturity than people with below average intelligence. In the present study the effect of
intelligence on the dependent variable is thought to be minimal as the control group and the experimental group were classified by the guidance teacher to be similar in ability.

The home language of the participants in the experimental group included the following: English 22%; Afrikaans 26%; Xhosa 45%; and Xhosa/Afrikaans 7%. The home language of the participants in the control group included the following: English 29%; Afrikaans 38%; and Xhosa 33%. It is interesting to note that the Xhosa speaking learners formed the dominant language group in the experimental group, whereas in the control group, there was a balance between English, Afrikaans and Xhosa speaking learners. It could be argued that the English and Afrikaans speaking learners originated from the coloured ethnic group which would balance off the apparent cultural imbalance in the experimental group. These are interesting statistics because the sample was drawn from a community that is perceived as a predominantly Afrikaans-speaking community.

**Procedure**

Key personnel at Alphendale High School were approached. They agreed to support the study on the condition that they would receive training in presenting a career development programme. Furthermore, the principal, Mr Clive Prince, granted permission for the career development programme and the study to be conducted at his school. See Appendix B for letter written to principal. The career programme took place over a five week period, once a week. This comprised an approximate total of eight contact hours.

The experimental group and the control group were surveyed before the programme was presented (time one) and immediately again at the end of the programme (time two)
with the questionnaire comprising academic motivation items and Career Development Questionnaire items. Eight weeks later, both groups were surveyed again, (time three) with the same questionnaire. It was considered necessary to do the time three measurements as Martin (2005) comments that it is not uncommon to experience immediate gains as a function of an intervention, for the issues and concepts under focus are top-of-mind for participants. It is therefore expected that there would be enhancement in career maturity and academic motivational gains at the end of the programme, but it was also of interest to follow learners up within an eight week period of the career programme. Martin (2005) contended this to be a feasible test of learners’ ability to sustain career maturity and motivational gains over a reasonable period of time that encompassed academic pressure. Although not part of the present study, longer term gains would be an even stronger test of sustainability over time.

Each measurement process was administered with a standardised procedure. Learners in the experimental group were asked not to discuss their experiences with the control group learners, thereby trying to avoid contamination of results.

**Instruments**

*Academic Motivation:* The Academic Motivation Scale consisted of eight items and was developed for the purpose of this study. Respondents were asked to indicate on a five-point Likert scale the degree to which they agreed with each statement. Statements tapping academic motivation include items that focus on an individual’s sense of setting academic goals, for example, “The results I achieve in Grade 11 are important for my career”. The Cronbach alpha reliability coefficient of this scale did not achieve
acceptable measures of reliability. The scale was therefore reduced to item one and item seven whereby the correlation between these two items was established. The Pearson’s coefficient at time one was .220 with a significance of $p = .05$; at time two was .35 with a significance of $p = .002$; at time three was .42 with a significance of $p = 000$. See Appendix C, items one to eight for Academic Motivation Scale.

**Career Maturity:** Quinn (1992) explains that there is no single measure which can be called career maturity and that any test or inventory can, at best, only provide an assessment of one or more aspects of this complex construct. Commensurate with this statement, the Career Development Questionnaire (Langley et al, 1992) was the instrument used to assess the impact of the programme on career maturity whereby five subscales are used. The CDQ was developed and standardised in South Africa by Langely, Du Toit, and Herbst (1992). It is used to determine the level of career maturity that the person has achieved. It examines five dimensions or subscales of career development: self-information (SI); decision-making (DM); career information (CI); integration of self-information and career information (I); career planning (CP). The CDQ questionnaire was transformed from a test requiring true or false responses to a five-point Likert scale whereby the subjects had to indicate the degree to which they agreed with each item. For the purposes of the present study and economy of time, the CDQ questions were reduced from 20 items to 10 items per subscale. No language structure was changed. The item reduction has consequences for the reliability and for that reason the Spearman-Brown stepped up reliability coefficient is also reported in brackets after reporting the Cronbach alpha coefficients. The reliability is reported for
the whole sample which includes the experimental and control group. See Appendix C, items nine to 58 for the shortened CDQ scales.

The scale, _Self-information_, concerns the testee’s knowledge of the importance of life roles, work values and occupational interests. “I want to choose an occupation that allows me to do what I believe in” is an example of the items from this scale. Langley, Du Toit and Herbst (1992) reported reliability coefficients, for the whole Self-information subscale, ranging from 0.71 to 0.78. In the present study, after excluding five out of the ten items, the following Cronbach alpha coefficients were achieved for the Self-information subscale: 0.53 (0.54) for time one; 0.71 (0.73) for time two; and 0.60 (0.61) for time three. The items 14, 15, 16, 17, 18 were excluded.

The scale, _Decision-making_, deals with the ability to make effective decisions. “I do not really know how to make a planned decision” is an example of the items used in the Decision-making subscale. Langley, Du Toit and Herbst (1992) reported reliability coefficients, for the whole Decision-making subscale, ranging from 0.74 to 0.79. In the present study the following Cronbach alpha coefficients were achieved for 9 items used in the Decision-making subscale: 0.52 (0.52) for time one; 0.65 (0.67) for time two; and 0.66 (0.67) for time three. Item 10 was excluded.

The scale, _Career Information_, assesses the testee’s knowledge of the world of work. An example of the items used in this subscale is: “I am aware of related occupations in the occupational field I am interested in.” Langley, Du Toit and Herbst (1992) reported reliability coefficients, for the whole Career Information subscale, ranging from 0.66 to 0.82. In the present study, after excluding 3 out of the ten items, the following Cronbach alpha coefficients were achieved for the Career Information subscale: 0.72 (0.73) for
The scale, *Integration*, queries the testees’ ability to integrate information about himself with information with the world of work. “I would very much like to work in an occupational environment in which I can be myself” is an example of the items used in the subscale, Integration. Langley, Du Toit and Herbst (1992) reported reliability coefficients for the whole Integration subscale ranging from 0.73 to 0.79. In the present study, after excluding four out of the ten items, the following Cronbach alpha coefficients were achieved for the Integration subscale: 0.44 (0.51) for time one; 0.62 (0.62) for time two; and 0.54 (0.57) for time three. The items 45, 46, 47 and 57 were excluded.

The scale *Career Planning* assesses the testee’s ability to make a career decision and to implement a career plan. An example of the items used in this subscale: “I think it is unnecessary to plan a career as there is nothing I can do to make things happen.” Langley, Du Toit and Herbst (1992) reported reliability coefficients for the whole Career Planning subscale ranging from 0.79 to 0.82. In the present study the following Cronbach alpha reliability coefficients were achieved for the 10 items used in the Career Planning subscale: 0.57 (0.61) for time one; 0.56 (0.63) for time two; and 0.61 (0.65) for time three.

O’ Hare (1990) investigated both content and construct validity of the CDQ and claimed that there was a reasonably high correlation between the scales of the CDQ. In the present study, the Pearson correlation coefficients range from .31 to .46 with \( p < 0.05 \) for time one; between .38 to .69 with \( p < 0.001 \) at time two; and between .42 to .69 with
p < 0.001 at time three. Langley et al., (1992) asserts that the content of the CDQ was carefully examined by experts for face validity.

The academic motivation scale and the CDQ scale were combined to form one questionnaire comprising 58 items.

RESULTS

Four different statistical analyses were used to test the first hypothesis which stated that the career development programme would enhance the career maturity and academic motivation of Grade 11 learners. Firstly, it was calculated whether there was a statistically significant difference between the control group and the experimental group measurements taken at time one, two and three in respect of the five subscales of the CDQ. If there was no statistically significant difference between the two group’s measurements at time one it would indicate that the groups were equivalent in terms of their career maturity before the programme began. In accordance with the first hypothesis, it would be expected that the experimental group’s mean measurement at time two would show statistically significant gains in relation to the control group. This would indicate that the career programme had enhanced the career maturity of the group exposed to the career programme and thereby endorse the first hypothesis as correct. If the experimental group’s measurement at time three indicated further statistical gains in relation to the control group, it would be evident that the career programme had elicited further development of career maturity of the learners eight weeks after the programme had been completed.
**Self-information subscale (SI):** According to the observed score at time one for the subscale, SI, the experimental group (M = 4.42; SD = .37) and the control group (M = 4.37; SD = .60) did not differ significantly from each other (t (30.42) = 0.41; p = .69). These results suggest that the two groups were equivalent in self-information before the programme was presented. The independent samples t-test revealed for time two that the experimental group (M = 4.56; SD = .43) and the control group (M = 4.24; SD = .59) differed significantly (t (80) = 2.71; p = .008). The significant gains showed by the experimental group indicated that the programme enhanced the learners’ self-information. According to the observed scores at time three for the subscale, SI, the experimental group (M = 4.61; SD = .32) and the control group (M = 4.31; SD = .51) still differed significantly (t (30.97) = 2.63; p = .013). These results suggest that the programme had a long-term effect on learners’ self-information.

**Decision-making (DM):** According to the observed scores at time one for the subscale, DM, the experimental group (M = 3.67; SD = .48) and the control group (M = 3.44; SD = .57) did not differ (t (80) = 1.87; p = .07). The results indicate that the two groups were equivalent in decision-making ability prior to the programme. According to the observed scores at time two for the subscale, DM, the experimental group (M = 3.92; SD = .53) scored significantly higher (t (79) = 2.98; p = .004) than the control group (M = 3.54; SD = .51). These results suggest that the programme had an impact on the learners’ decision-making ability. Again, a long-term effect on learners’ decision-making ability was observed as the scores at time three for the experimental group (M = 4.00; SD = .53) and the control group (M = 3.70; SD = .43) still differed significantly (t (79) = 2.47; p = .016).
Career information (CI): According to the observed score at time one for the subscale, CI, the experimental group (M = 4.05; SD = .72) and the control group (M = 4.10; SD = .58) did not differ significantly (t (80) = -0.285; p = .78). These results indicate that the two groups were equivalent in career information before the programme was presented. According to the observed scores at time two for the subscale, CI, the experimental group (M = 4.23; SD = .55) and the control group (M = 4.12; SD = .58) revealed no differences (t (79) = 0.792; p = .43). There were no significant differences (t = 1.79; p = .084; df = 31.73) at time three between the experimental group (M = 4.40; SD = .50) and the control group (M = 4.10; SD = .76).

Integration (I): According to the observed score at time one for the subscale, I, the experimental group (M = 4.44; SD = .33) and the control group (M = 4.36; SD = .44) did not show differences (t (79) = 0.90; p = .369). These results indicated that the two groups were equivalent in perceived ability to integrate self-information and career information before the programme was presented. According to the observed scores at time two for the subscale, I, significant differences appeared (t (33.05) = 3.80; p = .001) between the experimental group (M = 4.67; SD = .34) and the control group (M = 4.26; SD = .48). These results suggest that the programme had an impact on the learners’ perceived ability to integrate self-information with career information. According to the observed scores at time three for the subscale, I, a long term effect can be assumed as the experimental group (M = 4.55; SD = .38) and the control group (M = 4.34; SD = .38) differed significantly (t (78) = 2.25; p = .03).

Career Planning (CP): According to the observed score at time one for the subscale, CP, the experimental group (M = 3.95; SD = .60) and the control group (M = 4.00;
SD = .47) did not differ significantly from each other (t (80) = -0.37; p = .71). These results suggest that the two groups were equivalent in perceived career planning ability before the programme was presented. The independent samples t-test revealed for time two that the experimental group (M = 4.49; SD = .39) and the control group (M = 4.12; SD = .44) differed significantly (t (80) = 3.74; p = .000). These results indicate that the programme enhanced the learners’ perceived ability to plan a career. According to the observed scores at time three for the subscale, SI, the experimental group (M = 4.50; SD = .41) and the control group (M = 4.08; SD = .47) still differed significantly (t (79) = 3.99; p = 000). These results suggest that the programme had a long-term effect on learners’ perceived ability to plan a career.

The first hypothesis, which stated that the career development programme would enhance the career maturity and academic motivation of Grade 11 learners, was further examined by analysing whether there was a significant difference between the measurements of the experimental group at time one, two and three with respect to the CDQ subscales by using paired sample t-tests.

Self-information: The experimental group’s mean score at time one for the subscale SI, measured 4.42 (SD = .37) while the mean score for time two measured 4.56 (SD = .43) which revealed to be significant (t (57) = -2.54; p = .014). The results suggest that the programme had an impact on the learners’ self-information. The experimental group’s mean score at time three measured 4.61 (SD = .32). Further analysis indicate that there is no statistically significant difference between the time two and time three
(t (56) = -1.34; p = .185), but there was a significant difference between time one and time three (t (56) = -4.60; p = 000). These results indicate that the increase in self-information was sustained long after the programme had been completed.

**Decision-making:** The experimental group’s mean score at time one for the subscale DM, measured 3.67 (SD = .48) while the mean score for time two measured 3.92 (SD = .53). The results of paired samples t-test indicate that there is a statistically significant difference between the two mean scores (t (57) = -4.01; p = .000). The results suggest that the programme had an impact on the learners’ perceived ability to make career decisions. The experimental group's mean score at time three measured 4.00 (SD = .53). Although the results of the paired samples t-tests indicate that there is no statistically significant difference between the time two and three mean scores (t (56) = -1.89; p = .07), there is a significant difference between time one and three mean scores (t (56) = -4.92; p = 000). These results indicate that the increase in perceived ability to make career decisions was stable on a level long after the programme had been completed.

**Career Information:** The experimental group’s mean score at time one for the subscale CI measured 4.05 (SD = .72) while the mean score for time two measured 4.23 (SD = .55). The results of the paired samples t-tests indicate that there is a statistically significant difference between the two mean scores (t (57) = -2.24; p = .03). These results suggest that the programme had an impact on the learners’ career information. The experimental group’s mean score at time three measured 4.40 (SD = .50) and the results of the paired samples t-test indicated that there was a significant difference between the time two and three mean scores (t (56) = -2.34; p = .07). These results
suggest that the development of the learners’ career information continued after the programme was completed. There was also a statistically significant difference between time one and three mean scores (t (56) = -3.97; p = 000).

Integration: The experimental group’s mean score at time one for the subscale I measured 4.44 (SD = .33) while the mean score for time two measured 4.67 (SD = .34). Results of the paired samples t-tests indicate that there was a statistically significant difference between the two mean scores (t (56) = 4.15; p = .000). These results suggest that the programme had an impact on the learners’ perceived ability to integrate self-information and career information. The experimental group’s mean score at time three measured 4.56 (SD = .38). Results of the paired samples t-tests indicate that there is a statistically significant difference between the time two and three mean scores (t (56) = 2.36 ; p = .02). These results indicate that there was a significant decrease in the learners’ perceived ability to integrate self-information with career information after the programme was completed. Furthermore, there was no statistically significant difference between time one and three mean scores (t (55) = -1.92; p = .06). These results indicate that the career programme had an impact on the learners’ perceived ability to integrate self-information with career information, but was not sustainable after the programme had been completed.

Career Planning: The experimental group’s mean score at time one for the subscale CP measured 3.95 (SD = .60) while the mean score for time two measured 4.49 (SD = .39). The results of the paired samples t-tests indicated that there was a significant difference between the two scores (t (57) = -7.31; p = .000). These scores suggest that the programme had an impact on the learners’ perceived ability to plan their careers. The
experimental group’s mean score at time three measured 4.50 (SD = .41). Further analysis indicate that there was no significant difference between the time two and three mean scores (t (56) = -0.17; p = .87), but was a significant difference between time one and three mean scores (t (56) = -7.38; p = 000). These results indicate that the impact the programme had on perceived ability to make career plans was sustained long after the programme had been completed.

Additional analysis used to test the first hypothesis examined whether there was a statistically significant difference between the control group and the experimental group measurements taken at time one, two and three with regard to academic motivation.

According to the observed score at time one for the construct, academic motivation, the experimental group measured a mean score of 4.70 (SD = .60) and the control group measured a mean score of 4.58 (SD = .67). Results of independent samples t-tests indicated that the mean difference was not statistically significant (t (80) = 0.763; p = .45). These results suggest that that the two groups were equivalent in academic motivation before the programme was presented. According to the observed scores at time two for the construct academic motivation, the experimental group measured a mean score of 4.96 (SD = .19) and the control group measured a mean score of 4.75 (SD = .39). Results of independent samples t-tests indicated that the mean difference was statistically significant (t (27.82) = 2.48; p = .02). These results indicate that the programme had a positive impact on the learners’ academic motivation. The experimental group measured a mean score of 4.96 (SD = .16) and the control group measured a mean score of 4.90 (SD = .25) at time three. The results of an independent samples t-test indicated that the mean difference was not statistically significant.
There was no difference in the mean score of the experimental group at time three, however, there was an increase in the mean score of the control group at time three suggesting that there were changes within the control group.

A final analysis used to test the first hypothesis, examined whether there was a significant difference between the measurements of the experimental group at time one, two and three with respect to academic motivation. It also seemed expedient to determine if there was a statistically significant difference between the measurements of the control group at time one, two and three with respect to academic motivation.

The experimental group’s mean score at time one for the academic motivation measured 4.70 (SD = .60) while the mean score for time two measured 4.96 (SD = .19). The results of the paired samples t-tests indicate that there was a statistically significant difference between the two mean scores (t (57) = -3.20; p = .002). These results indicate that the programme had an immediate impact on the learners’ academic motivation. The experimental group’s mean score for academic motivation, at time three, measured 4.96 (SD = .16). The results of the paired samples t-tests indicate that there is no difference between the time two and three mean scores (t (56) = -0.26; p = .80). These results indicate that there was no significant increase in the learners’ academic motivation after the programme was completed. There was, however, a statistically significant difference between time one and three mean scores (t (56) = -3.78; p = .000) which indicates that the career programme had an impact on the learner’s academic motivation which was sustained long after the programme had been completed. It must be noted, however, that the control group’s mean score for time one measured 4.58 (SD = .67); time two measured 4.75 (SD = .39) and 4.90 (SD = .25) for time three. Results of a paired samples
t-test indicate that there is a statistically significant difference between the time two and three mean scores (t (23) = -2.07; p = .05). Furthermore, there was also a statistically significant difference between time one and three mean scores (t (23) = -2.79; p = .01). These results suggest that the control group’s academic motivation was enhanced by some factor. It could be speculated that they were aware of the programme and were experiencing a sense of being left out, and to compensate they responded more positively to the items in order to feel they had also benefited.

The second hypothesis stated that the career development programme would significantly strengthen the correlation between the constructs career maturity and academic motivation. It was, therefore, necessary to determine whether there was a significant correlation between academic motivation and each of the five subscales of the CDQ of the experimental group. Table 5 represents the experimental group’s measurements taken at time one, two and three in respect of the five subscales of the CDQ and academic motivation.

Table 5  Correlations between Academic Motivation and the CDQ subscales

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-information</td>
<td>.12</td>
<td>.25†</td>
<td>.18</td>
</tr>
<tr>
<td>Decision making</td>
<td>.32</td>
<td>.28*</td>
<td>.41**</td>
</tr>
<tr>
<td>Career Information</td>
<td>.15</td>
<td>.20</td>
<td>.30*</td>
</tr>
<tr>
<td>Integration</td>
<td>-.02</td>
<td>.07</td>
<td>.06</td>
</tr>
<tr>
<td>Career planning</td>
<td>-.02</td>
<td>.25†</td>
<td>.20</td>
</tr>
</tbody>
</table>

Note: † p < .10; * p < .05; ** p < .01; *** p < .001
The results in Table 5 indicate that there was no statistically significant correlation between self-information and academic motivation at time one or three of the experimental group, however, there was a tendency of a weak significant relationship at time two. At time one there was no statistically significant relationship between academic motivation and decision making. At time two, however, there was a weak statistically significant relationship between academic motivation and decision making and at time three there was a medium statistically significant relationship between academic motivation and decision making. These results suggest that the relationship strengthened over the period of the programme and continued to strengthen after the programme was completed. It is also indicated in Table 5 that there was no statistically significant correlation between academic motivation and career information at time one and two. There was, however, a medium statistically significant relationship at time three. It could be speculated that after the programme the learners were able to investigate certain careers and the corresponding academic requirements. This increase in career information increased their academic motivation as they realised the academic standards that various careers required. The results in Table 5 also indicate that there were no statistically significant correlation between integration and academic motivation at any time of the experimental group. Furthermore, there was no statistically significant correlation between academic motivation and career information at time one and three. There is, however, a tendency towards a weak statistically significant relationship at time two.

Testing the significant difference between the correlation coefficients of time one (.32); time two (.28*); and time three (.41**) by using z-statistics revealed significant
differences in the strength of the correlations between decision-making subscale and academic motivation between time one and two ($z_{obs} = 4.39 \geq 1.96$) and time one and three ($z_{obs} = 5.44 \geq 1.96$), but not between time 2 and three ($z_{obs} = 0.63$, which is $\geq -1.96$ and $\leq 1.96$). The difference between career integration and academic motivation between time two and three ($z_{obs} = 3.63 \geq 1.96$) also revealed to be significant.

**DISCUSSION**

This study sought to explore the effects of a career development programme on learners’ career maturity and academic motivation. Research clearly indicates that there is a need for effective career development programmes to provide learners with competencies in career decision-making and promote career development (Powell & Luzzo, 1998; Quinn, 1992; Janse, 1982; Bernard-Phera, 2000; Mackenzie, 1996; Watson et al., 1997; and Repetto, 2001). Although there is a plethora of research on career maturity (Bernard-Phera, 2000; Betz, 1988; Guthrie & Herman, 1982; Cassie, 2006; Legum & Hoare, 2004 and MacKenzie, 1996) and academic motivation (Komarraju & Ramayah, 2007; Martin, 2005; Schunk, 1991; Moen & Doyle, 1978; and Seifert, 2004), there is no prior research that has specifically investigated the effects of a career development programme on both these constructs. The impact of the present study’s career programme on career maturity and academic motivation will be discussed respectively.

*Career maturity:* The insignificant difference between the experimental and control groups’ career maturity pre-test scores, established the initial equivalence of the two groups. The results will be discussed in terms of the five subscales of the CDQ. Three of
the subscales, namely, self-information; decision-making and career planning revealed similar results. The experimental group showed significant gains from the initial measurements taken to the time three measurements taken eight weeks after the conclusion of the programme. The career programme was successful in strengthening these aspects of career maturity over an eight week period. This was corroborated by significant gains of the experimental group when compared to the control group with respect to these three subscales. Long term internalization is necessary for an effective psycho-educational programme, and therefore this result is important as it adds to our insight into the longevity of intervention work. Quinn (1992) developed a career development programme that had no effect on the long internalization of the career maturity of the learners in the study. She claims that her programme of fifteen hours of contact time over a two day period was too short and contributed to this problem. In the present study, a form of long term effects could be established, however, a more powerful test of the effectiveness of the career intervention programme would be to assess the link between it and later career choice success experienced by the learners in both the experimental and control groups.

The time three measurements of the subscales self-information; decision-making and career planning, revealed no significant differences from the time two measurements. This indicates that there was no further development of self-information; decision-making and career planning after the completion of the programme. The question is raised about the construct definition of these subscales and the way we measure them. Do these constructs have degrees or grades of development or do they operate on the all-or-nothing principle. An area for future investigation is to re-examine the construct
definition of these subscales to ascertain if they do indeed have differing dimensions or if they operate on the basis of all-or-nothing. It is also suggested that further exploration be undertaken into the time frame of a career programme and its influence on helping learners take a stronger sense of responsibility and ownership for engaging in career exploration and planning activities and thereby improving their career maturity. It is suggested that the career development programme should involve follow-up booster sessions during subsequent weeks to facilitate this process. Alternatively, it could be valuable to examine how early these career intervention programmes should be introduced to learners. Legum and Hoare (2004) report that at risk pupils who are involved in career exploration and awareness activities at primary school level are more likely to establish an effective programme of study for high school, thus better preparing them for their future career selection. This supports the notion that beginning career interventions at the high school level is ill-advised. Legum and Hoare (2004) suggest that career interventions need to begin at the primary school level to be effective.

The subscale, career information, revealed contradictory results. The experimental group showed enhanced career information according to time one and time three measurements. The time three measurement indicated the subscale, career information, had been sustained over the eight weeks. The career programme had strengthened the notion of career information for the learners in the experimental group. Nevertheless, when comparing the experimental group and the control group scores, the experimental group did not post significantly higher scores than the control group for either of the post-test measurements. This indicates that the control groups’ career information strengthened over the period of the programme and for the eight week period after the
programme. There are, however, two possible reasons for this effect, firstly, the learners’ from the experimental group could have spoken to learners from the control group about choosing different career options that they had learnt about. This might have elicited conversations around the issue which would have created incidental learning for the control group learners about career information. Secondly, the Hawthorne effect needs to be also considered. Draper (2002) explains that large effects that experimenters do not anticipate can be due to participants’ reactions to the experiment itself. These effects are not predictable and only occur sometimes. Draper (2002) contends that the aspect of how the participant interprets the situation is important. The learners in the control group in the present study, might have experienced a sense of being left out and possibly needed to also manifest some improvement in career knowledge. Career knowledge is possibly the subscale that relates the most to the notion of a career development programme. There is less certainty about the meanings and interpretations of the results of quasi-experimental studies because the researcher has less control of extraneous variables. It could be argued, however, that the research design used in this study is believed to be sufficiently probing as more efficient probes are unavailable. A study, however, conducted by Repetto (2001) achieved different results. The experimental group made minimal gains in the career information subscale when compared to the other subscales. Moreover, the control group obtained a negative mean score for this subscale. Repetto (2001) contended that this was due to learners in high schools having very little information about the labour market.

The final subscale, integration, was enhanced by the career programme as the experimental group revealed significant gains at time two. A significant decrease,
however, was measured between time two and three. The gains that had been achieved were lost. A possible reason for this occurrence is that the integration of self-information and career information is a complex concept and a five session programme is not adequate enough to facilitate the development of this process. Overall, the programme failed to provide a long-term impact on integration. An area for future exploration would be to find a way to gain a long-term impact on integration of self-knowledge and career knowledge. Bernard-Phera (2000) contends that factor analysis revealed that the subscale, integration of self-information and career information, is the best indicator of career maturity. It is interesting to note that an analysis of the control and experimental group measures indicate that the experimental group had significant gains in relation to the control group at time two and three. The significant increase in the experimental group in relation to the control at time two, corroborates with the significant gain already observed with the analysis of experimental group between time one and time two. However, the significant gain observed with the experimental group, in relation to the control group, at time three, seems to suggest that the control group decreased in measurement at time three. It is possible that the learners from the control group had heard learners from the experimental group discussing the complexities of the integration process. This could have made the control group learners less confident about their ability to understand the mechanics of the process. This is in contrast to the career information sub-scale where the control group measurements strengthened with possible incidental learning from the experimental group and therefore, improved confidence in that area.
Super (1990) asserted that the component of career exploration and career planning comprised the affective level of career maturity whereas the decision-making and career information components comprised the cognitive aspect of career maturity. The affective components correlate with the CDQ’s self knowledge and decision-making subscale. The cognitive component correlates with the subscale career information and integration from the CDQ. Results of an investigation by Creed and Patton (2003) seem to further indicate that the construct career maturity comprises two levels, that is, attitude (affect) and knowledge (cognitive). Creed and Patton (2003) were able to isolate certain variables that were predictors of each level. Furthermore, Repetto (2001) did an impact study of a career development programme on career maturity and achieved higher mean gains from the attitudinal subscales than from the cognitive subscales of a career maturity inventory. It seems significant that the results of the present study also demonstrate a clustering of results on two levels. The subscales, self information and decision-making, comprising the attitude component, revealed similar results whereas, career information and integration, the cognitive components, revealed different results. This seems to verify the importance of understanding career maturity on two levels, namely, attitude and knowledge.

*Academic Motivation:* Data showed that the learners’ academic motivation improved by the end of the programme and these gains were sustained for 8 weeks. These gains made and sustained are considered robust in the light of the diversity of academic pressures and challenges faced by the learners. A particular challenge that occurred during these 8 weeks was the nationwide teachers’ strike in June 2007. Academic motivation would be vulnerable to losses during this time.
Academic motivation was embedded tacitly in the programme and therefore there were no overt activities dealing with academic motivation. It is encouraging that key targeted components can be embedded into an existing programme and yield effects specific to its focus. This suggests that it is not necessary to develop programmes from the ground up, but to look for opportunities where complementary constructs can be built implicitly into intervention programmes. Martin (2005) showed gains on academic motivation from a broadly based youth enrichment programme that also embedded the construct academic motivation tacitly into the programme. The common pertinent elements between the Martin (2005) study and the present study is the optimistic expectations held by the adult presenters; the focus on mastery; the climate of cooperation and the positive relationships that developed between the learners and the presenters.

The results also revealed that there was no further development of academic motivation in the experimental group after the programme ended. It would possibly be fruitful to examine the effect the duration of the career programme has on the growth of learners’ intrinsic academic motivation.

A comparative analysis of the academic motivation measurements in the experimental group and the control group revealed that the experimental group did not show any significant difference to the control measure at time three. This suggests that the control group increased in their academic motivation measurement. The analysis of the control group measures confirmed the gains that occurred between time two and three and between time one and three. Post hoc examination of this phenomenon can only be speculative. Time three measurements were taken at the beginning of the third term. It is
possible that all learners felt refreshed and more academically motivated after a period of rest. Future studies should possibly do all measurements in one term. Again, the Hawthorne effect could be offered as a tentative reason for the control groups’ enhanced academic motivation. In other words, being part of a programme could have cued learners in the control group into the demand characteristics of the study and inflated their self-reported motivation.

The second hypothesis of the present study hypothesised that the career development programme would significantly strengthen the relationship between the constructs career maturity and academic motivation. The results revealed that there was no significant strengthening in the relationship between academic motivation and the subscales, self-information; integration; and career planning respectively. Significant correlations between decision-making and academic motivation; and career information and academic motivation, revealed that the programme did have an impact on the relationship. The z statistics revealed that there were significant differences in the strength of the correlations between decision-making and academic motivation between time one and two; and between time one and three. Before the programme there was no relationship between decision-making and academic motivation. The relationship had strengthened immediately after the programme and, according to our third measure, remained stable. This indicates that when people know what they want to do, they become more academically motivated. A significant correlation between career information and academic motivation was only found at time three and not at time two. It seems the relationship strengthened when the learners started to collect information
after the programme and the reality of requirements required for their careers motivated them academically.

It is possible that academic motivation only relates to certain dimensions of career maturity and does not have a relationship with all the dimensions of career maturity. These results have isolated these two dimensions and give valuable direction to future research where researchers can further investigate the relationship between academic motivation and decision-making; and academic motivation and career information.

It could also be argued that the academic motivation instrument was weak, and therefore not sensitive enough to measure the relationship accurately. Academic motivation was only considered in four different orientations: grades orientation; economic orientation; approval; and disliking school. It would have been more beneficial to have enlarged these dimensions to include, for example, persisting; facilitating anxiety; demanding; influencing; competing; affiliating and social and cultural dimensions.

The data presented in this study was all self-reported and therefore it is suggested that further research be conducted that examines the same constructs using data derived from additional sources, for example, from teachers, parents and actual academic achievement data.

In conclusion, the current study developed in an attempt to alleviate and heighten awareness of the problems experienced by South African youth in making effective, informed career decisions. In addition, Bernard-Phera (2000) highlights the need to build a body of career research that is indigenous and which will assist in developing theory that will be relevant for South Africans. A career development programme, with a sound
empirical basis, was considered as an alternative to the traditional career interview approach in assisting large numbers of young people with career development. The goal of this study was to determine the effect of a career intervention programme on the career maturity and academic motivation of Grade 11 learners at Alphendale High School. Career maturity, defined very simply as an individual’s readiness to choose a career, is an effective construct to assess the career development of the person. Given that academic motivation likely plays a key role in learning and academic performance, it is crucial to develop a better understanding of the determinants and facts of academic motivation (Komarraju & Karau, 2007). This study demonstrated that aspects of the learners’ career maturity and their academic motivation improved subsequent to the career intervention programme and therefore underscored the value of a career intervention programme. As previously stated, educational resources are often limited in previously disadvantaged schools with educators working under difficult conditions. The present study has demonstrated the value of a career intervention programme that is economical in time and resources. Indeed, the findings are significant for they show that brief intervention, well timed and well targeted, yields effects consistent with the underlying theoretical rationale of the programme. Although long-term programmes are found to be most effective for intervention youth work, (Martin, 2005) it is very encouraging that briefer approaches can yield results. More importantly, this study has verified that a career development programme should serve as an essential component in educational curriculum in order to actualize human potential.
REFERENCES


Finding the Fit

MY CAREER BOOK
WHAT'S INVOLVED IN MAKING A CAREER DECISION?

1. **Self-knowledge:** Who Am I?
   - 1.1 personality
   - 1.2 interests
   - 1.3 values
   - 1.4 ability

2. **Information about the world of work and careers:**
   - 2.1 Career Fields
   - 2.2 Sources of Information

3. **Information about education and training:**
   - 3.1 Higher education
   - 3.2 Learnerships
   - 3.3 Private institutions
   - 3.4 Funding your studies

4. **Integrating knowledge of self and knowledge of careers**
   - 4.1 Finding the fit: Compatible career choice form
   - 4.2 Career myths and career decision-making traps

5. **Decision-making**

6. **Taking ownership of the process**
1. SELF-KNOWLEDGE:

To be able to make wise decisions when choosing your career you need to acquire knowledge about yourself, that is, personal style; interests; your passions; abilities: your strengths; and values: what is important to you. According to an expert in the career counselling field, Niels Lindhard, “Until you know who you are, you cannot know what you can become.”

So, I would like to help you on a path of self-discovery.

How best do we learn about ourselves? Explain Johari Window and how it tells us where we can get information about ourselves.

1.1 Personality

What does personality describe? Give examples of different types of personalities. Explore your personality.
- Write down how you would describe yourself.
- Find a friend, and on a separate piece of paper write down how you would describe him or her.
- Discuss your opinions with each other.
Feedback to whole group.

Let us start with looking at personality as described by John Holland, an American psychologist who developed a personality assessment called the Self-directed Search. He grouped the personality into 6 different groups in relation to the world of work.

Administer and score S.D.S.

Assure pupils that there are no wrong answers and encourage them to give answers that are true to themselves in order to get accurate results. Furthermore, assure them that they will score the tests and therefore will know the results.

Do an analysis and explanation of S.D.S. results.
"Self-Directed Search" Questionnaire (SDS)

Rènette Bisschoff
"Self-Directed Search" QUESTIONNAIRE (SDS)
Occupational Interest

A. INSTRUCTIONS

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

1. Your SURNAME and INITIALS.

2. AREA.

3. SCHOOL.

4. TESTEE NUMBER.

5. AGE: Completed years.

6. LANGUAGE: (Home language) shade the appropriate oval space (if none of the mentioned languages apply, then shade OTHER).

7. SEX: Shade the appropriate oval space.

8. STANDARD: The standard in which you are at present or the highest standard that you have passed if you have left school.

    TESTER: Initials and surname of tester.

    DATE: Day of testing.

PLEASE MAKE SURE THAT ALL PARTICULARS ARE COMPLETED CORRECTLY AND IN FULL.
B. GENERAL INFORMATION

1. PURPOSE

The purpose of this questionnaire is to determine your interests, as they will be of importance when you make a career decision.

2. THE QUESTIONNAIRE

This is a questionnaire and not a test. There are therefore no correct or incorrect answers. This questionnaire contains a number of questions relating to your activities, competencies, interests in occupations as well as questions in which you are asked to rate your abilities/skills.

3. HOW TO ANSWER THE QUESTIONNAIRE

The instructions for answering the questions are given at the top of each section. Read the instructions carefully and then answer the questions that follow. Answer all questions on the answer sheet by shading the specific oval you choose. For the first three sections (questions 1-216) you must answer either YES or NO. In section IV, however, you must rate yourself on a scale from 1 to 6.

4. ADDITIONAL INFORMATION

Work as quickly as possible. If you do not understand any question, you may raise your hand and ask to have it clarified. If the point of your pencil breaks, raise your hand and you will be given another one. Try to complete the questionnaire in approximately 30 to 40 minutes. Make sure that you always ANSWER THE QUESTION NEXT TO THE NUMBER THAT CORRESPONDS WITH IT. Be sure to answer all the questions. You are not allowed to make any marks on this booklet or any unnecessary marks on the answer sheet. Rub out neatly when you want to change an answer.
C. QUESTIONNAIRE

SECTION 1: ACTIVITIES

Shade YES for the activities you LIKE TO DO or think you WOULD LIKE TO DO. Example:  

Shade NO for the activities you are INDIFFERENT TO, HAVE NEVER DONE, or DO NOT LIKE TO DO. Example:  

1. Fix electrical apparatus.
2. Repair motor cars.
3. Fix mechanical apparatus.
4. Build objects with wood.
5. Drive a truck or tractor.
6. Use metalwork or machine tools.
7. Work on a bicycle or motorcycle.
8. Take a technical course.
9. Take a course in mechanical drawing.
10. Take a woodworking course.
11. Take a motor mechanics course.

12. Read scientific books or magazines.
13. Work in a laboratory.
14. Work on a research project.
15. Study a scientific theory.
17. Read about a special subject on my own.
18. Apply mathematics to practical problems.
19. Take a physics course.
20. Take a chemistry course.
21. Take a mathematics course.
22. Take a biology course.

23. Sketch, draw, or paint.
24. Take part in a comedy or play.
25. Design furniture, clothing, posters, or buildings.
26. Play in a band, musical group or orchestra.
27. Practise to play a musical instrument.
28. Go to recitals, concerts or musicals.
29. Create portraits or take photographs.
30. Read plays.
31. Read or write poetry.
32. Take an art course.
33. Arrange or compose music of any kind.
S.

34. Write letters to friends.
35. Read articles or books on sociology.
36. Belong to social clubs.
37. Help others with their personal problems.
38. Take care of children.
39. Go to parties/social meetings.
40. Dance.
41. Read books on psychology.
42. Help handicapped people.
43. Go to sports events.
44. Teach in a school.

E

45. Convince other people.
46. Sell something.
47. Discuss politics.
48. Manage your own service or business.
49. Go to meetings.
50. Give talks.
51. Act as a leader of a group.
52. Supervise the work of others.
53. Meet important people.
54. Lead a group in accomplishing some goal.
55. Participate in a political campaign.

C

56. Keep your own desk and room neat.
57. Type papers or letters.
58. Add, subtract, multiply, and divide numbers in a business, or bookkeeping.
59. Operate business machines of any kind.
60. Keep detailed records of expenses.
61. Take a typewriting course.
62. Take a business course.
63. Take a bookkeeping course.
64. Take a commercial maths course.
65. File letters, reports, records, etc.
66. Write business letters.
SECTION II: COMPETENCIES

Shade YES for those activities that you HAVE KNOWLEDGE of or that you CAN DO WELL or COMPETENTLY.

Shade NO for those activities that you HAVE LITTLE or NO KNOWLEDGE of or that you HAVE NEVER PERFORMED or PERFORM POORLY.

R

67. I have used a woodworking tool such as a power saw, a lathe or a sander.
68. I know how to use a voltmeter.
69. I can change car oil or tyres.
70. I have operated tools such as a drill press or a grinder or a sewing machine.
71. I can refinish, varnish or stain furniture or woodwork.
72. I can read blueprints (building plans).
73. I can make simple electrical repairs.
74. I can repair furniture.
75. I can do mechanical drawings.
76. I can do simple repairs to a TV set (or radio).
77. I can do simple plumbing repairs.

I

78. I can use algebra to solve mathematical problems.
79. I have participated in a scientific contest.
80. I understand the "half-life" of a radioactive element.
81. I understand logarithmic tables.
82. I can use a slide rule/calculator to multiply or divide.
83. I can use a microscope.
84. I can program a computer to study a scientific problem.
85. I can describe the function of white blood cells.
86. I can interpret simple chemical formulas.
87. I understand why man-made satellites do not fall to the earth.
88. I can name three foods that are high in vitamins.

A

89. I can play a musical instrument.
90. I can participate in two or four-part choral singing.
91. I can perform as a musical soloist.
92. I can act in a play.
93. I can do interpretive reading.
94. I can do interpretive or ballet dancing.
95. I can sketch people in such a way that they are recognizable.
96. I can do a painting or do a piece of sculpture.
97. I can do pottery.
98. I can design clothing, posters or furniture.
99. I can write stories or poetry well.
100. I find it easy to talk to all kinds of people.
101. I am good at explaining things to others.
102. I am competent at entertaining people older than myself.
103. I can be a good host/hostess.
104. I can teach others easily.
105. I can plan entertainment for a party.
106. I have worked as a hospital helper or nurse.
107. I am good at helping people who are upset or troubled.
108. I can plan social events for the school or the church.
109. I am a good judge of personality.
110. People seek me out to tell me their troubles.

111. I have won an award for work as a salesperson or leader.
112. I know how to be a successful leader.
113. I am a good debater.
114. I could manage a small business or service.
115. I have organized a club or group.
116. I have been elected to an office while in high school or after leaving school.
117. I have acted as a spokesman for a group in presenting suggestions or complaints to a person in authority.
118. I can supervise the work of others.
119. I am ambitious.
120. I am good at getting people to do things my way.
121. I am a good salesperson.

122. I can type 40 words a minute.
123. I can operate a duplicating or adding machine.
124. I can take shorthand.
125. I can file correspondence and other papers.
126. I have held an office job.
127. I can use a bookkeeping/accounting machine.
128. I can do a lot of paper work in a short time.
129. I can use a pocket calculator.
130. I can use simple data processing equipment such as a keypunch.
131. I can post credits and debits.
132. I can keep accurate records of payments or sales.
SECTION III: OCCUPATIONS

This section concerns your feelings and attitudes regarding many kinds of work.

Show the occupations/jobs that INTEREST or APPEAL TO you by shading YES.

Show the occupations/jobs that you DISLIKE or FIND UNINTERESTING by shading NO.

R

133. Aeroplane mechanic - maintains aeroplanes.
134. Fish and wildlife specialist - studies natural animal resources.
137. Power shovel operator - runs shovel and large building and road equipment.
139. Farmer - works on a farm where crops are grown or livestock is bred and raised.
140. Surveyor - measures distances for buildings and roads.
141. Construction inspector - inspects new buildings to see that they meet certain requirements.
142. Radio operator - sends and receives radio messages.
143. Long distance bus driver - transports people over long distances.
144. Engine driver - runs trains.
145. Tool designer - designs tools to do new jobs.
146. Electrician - maintains and repairs electric wires and machinery.

I

147. Meteorologist - studies the weather.
148. Biologist - studies plants and animals.
149. Astronomer - studies the stars.
150. Medical laboratory technician - works in a medical laboratory and provides information to the medical doctor.
151. Anthropologist - studies the beliefs, the past and present behaviour and the physical characteristics of people.
152. Zoologist - studies animals.
153. Chemist - studies composition and characteristics of materials and the processes they undergo.
154. Research scientist - conducts scientific experiments.
155. Writer of scientific articles - writes articles on science for magazines, books or encyclopedias
156. Editor of a scientific journal - heads a magazine that publishes articles on science.
157. Geologist - studies the earth, rocks, mountains, volcanoes.
158. Botanist - studies plants.
159. Microbiologist - studies the growth and characteristics of microscopic organisms
160. Physicist - studies the physical laws of nature (gravity, magnetism, motion).
A.

161. Poet - writes poetry.
162. Symphony conductor - conducts musicians who play in an orchestra.
163. Musician - plays musical instruments or sings.
164. Writer - writes books, plays, poetry and newspaper articles.
165. Actor/actress - acts in a play.
166. Freelance writer - writes stories for magazines, newspapers on a part-time basis.
167. Musical arranger - writes music for words someone has written.
169. Commercial artist - promotes the sale of products by means of pictures, paintings and pieces of sculpture.
170. Concert singer - sings on the stage.
171. Composer or lyricist - writes music or words to music.
172. Sculptor/sculptress - carves/moulds statues from marble, metal, clay or wood.
173. Playwright - writes plays.
174. Cartoonist - draws comic strips or humorous drawings on sports and news events.

S

175. Sociologist - examines the ways in which individuals in groups and groups themselves interact.
176. High school teacher - teaches one or two subjects to pupils in Standards 6 to 10.
177. Playground director - organizes games for young people at a playground.
178. Speech therapist - helps people correct and solve their speech problems.
179. Marriage counsellor - helps husbands and wives who are not happy together.
180. School principal - head of a school.
181. Psychiatric nurse - someone who cares for psychiatric patients in a hospital.
182. Clinical psychologist - helps people who are unhappy with their lives.
183. Social science teacher - teaches for example, history and geography.
184. Director of a welfare agency - head of an organization that gives social support to families or individuals in distress.
185. Youth organizer - organizes activities and takes responsibility for young people.
186. Counselling psychologist - helps individuals to deal with the problems that occur in everyday life.
187. Social worker - helps people to cope satisfactorily in their family and community life.
188. Vocational counsellor - someone who helps others decide what kind of work they would like to do.
189. Speculator - someone who takes risks with buying and selling to make money.
190. Buyer - purchases merchandise from manufacturers and wholesalers.
192. Manufacturer’s representative - a salesperson who sells a company’s products.
193. Television producer - produces TV shows.
194. Hotel manager - manages a hotel.
196. Restaurant manager - runs a restaurant, hires the waiters and waitresses, cashiers and cooks.
197. Advocate - conducts civil and criminal cases in various courts of law.
198. Salesperson - person who sells goods and services.
199. Real estate salesperson - sells houses and property.
200. Personnel manager - gives advice and sees to it that personnel policies are carried out.
201. Sports promoter - arranges and publicizes sports events.
202. Sales manager - ensures that goods and services are sold.

C.

203. Bookkeeper - keeps track of how money is earned and spent in a business.
204. Business teacher - teaches business subjects at school, e.g. bookkeeping, commerce.
205. Data typist - uses a special typewriter to process information for immediate or future use.
206. Chartered accountant - inspects the correctness and completeness of the financial states and books of organizations.
207. Credit controller - checks if clients have credit value.
208. Court stenographer - records everything on tape said during courtroom trials.
209. Bank teller - receives and pays out money at a bank.
210. Tax expert - advises people on tax matters.
211. Inventory controller - takes stock of goods in a store or business at a certain time.
212. Typist - types letters, reports, etc. on a typewriter.
213. Financial analyst - works out if a person or business is spending money wisely.
214. Cost estimator - determines how much it will cost to do certain jobs.
215. Payroll clerk - calculates how much money people should be paid for their jobs.
216. Bank inspector - checks on bank personnel to see if they carry out their work.
SECTION IV: RATING OF YOUR ABILITIES AND SKILLS

This section consists of two groups (GROUP I and GROUP II) of six abilities/skills each on which you must rate yourself.

Rate yourself on a scale of 1 to 6 on each of these abilities or skills. Rate yourself as you really think you are when compared with other persons of your own age.

Give the most accurate estimate of how you see yourself.

Avoid giving yourself the same rating for each ability/skill.

Your ratings of your abilities/skills should be entered in Section IV which appears at the bottom of the answer sheet (Side 1). Write the ratings you give yourself for each of the abilities/skills, in the blank squares next to numbers 1 to 12. Then shade the appropriate oval spaces corresponding to the ratings you have given yourself.

Examples:

1. Mechanical ability (fixing things, using tools and machines)

Suppose that Peter rates his mechanical ability as being low in comparison with the mechanical ability of other persons of his own age. He will then write a 2 in the blank square next to Number 1 and shade the oval space marked 2 on the answer sheet.

Note: Section IV of the answer sheet is reproduced below as an example and Peter’s rating shows how one should indicate one’s rating on the answer sheet.

2. Scientific ability (biology, chemistry and problem solving)

Suppose that Peter’s scientific ability is high, but not quite as high as that of some of the other persons of his own age. He will then rate himself as a 5 and write a 5 in the blank square next to Number 2 and shade the oval space marked 5 on the answer sheet. See example below.

<table>
<thead>
<tr>
<th>Section IV</th>
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</table>

<table>
<thead>
<tr>
<th>Group I</th>
<th>Group II</th>
</tr>
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<tbody>
<tr>
<td>R</td>
<td>R</td>
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<td>1</td>
<td>7</td>
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<td>5</td>
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<td>6</td>
<td>5</td>
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</tbody>
</table>

NOW GO TO YOUR ANSWER SHEET AND RATE YOURSELF ON THESE TWELVE ABILITIES/SKILLS.

If you are still uncertain as to how to answer this part of the questionnaire, put up your hand and ask the tester to explain how it should be answered.
<table>
<thead>
<tr>
<th>GROUP I</th>
<th>Very Low</th>
<th>Low</th>
<th>Average</th>
<th>High Average</th>
<th>High</th>
<th>Very High</th>
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</thead>
<tbody>
<tr>
<td>1. I rate my mechanical ability (fixing things, using tools and machines) as:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (R)</td>
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<tr>
<td>2. I rate my scientific ability (biology, chemistry and problem solving) as:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (L)</td>
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<tr>
<td>3. I rate my artistic ability (music, art and drama) as:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (A)</td>
</tr>
<tr>
<td>4. I rate my teaching ability (helping others learn) as:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (S)</td>
</tr>
<tr>
<td>5. I rate my sales ability (selling or managing) as:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (E)</td>
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<tr>
<td>6. I rate my clerical ability (numbers, spelling and filing papers) as:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (C)</td>
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<table>
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<tr>
<th>GROUP II</th>
<th>Very Low</th>
<th>Low</th>
<th>Average</th>
<th>High Average</th>
<th>High</th>
<th>Very High</th>
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<tbody>
<tr>
<td>7. I rate my manual skills as:</td>
<td>1</td>
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<td>4</td>
<td>5</td>
<td>6 (R)</td>
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<td>8. I rate my mathematical ability as:</td>
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<td>4</td>
<td>5</td>
<td>6 (I)</td>
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<tr>
<td>9. I rate my musical ability as:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (A)</td>
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<td>10. I rate my friendliness as:</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (S)</td>
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<tr>
<td>11. I rate my managerial skills as:</td>
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<td>4</td>
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<td>6 (E)</td>
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<tr>
<td>12. I rate my office skills as</td>
<td>1</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (C)</td>
</tr>
</tbody>
</table>

NOTE: PLANNED OCCUPATIONS

1. Turn your answer sheet over to Side 2.
2. Find the place marked "Planned Occupations".
3. In order of preference write down the three occupations you think you may possibly follow after leaving school.

PLEASE MAKE SURE THAT ALL PARTICULARS ARE COMPLETED CORRECTLY AND IN FULL.
<table>
<thead>
<tr>
<th>NAME:</th>
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<tbody>
<tr>
<td><strong>ACTIVITIES</strong></td>
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<td><strong>Total:</strong></td>
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### CAREERS

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<th>E</th>
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<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>Yes</td>
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<td>Yes</td>
<td>No</td>
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</tr>
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<td>11</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>12</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

### ABILITIES

<table>
<thead>
<tr>
<th>Mechanical</th>
<th>Scientific</th>
<th>Artistic</th>
<th>Teaching</th>
<th>Sales</th>
<th>Clerical</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>I</td>
<td>A</td>
<td>S</td>
<td>E</td>
<td>C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manual</th>
<th>Math</th>
<th>Musical</th>
<th>Understanding of others</th>
<th>Management</th>
<th>Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>I</td>
<td>A</td>
<td>S</td>
<td>E</td>
<td>C</td>
</tr>
</tbody>
</table>

### Score:

<table>
<thead>
<tr>
<th>Activities</th>
<th>Skills</th>
<th>Careers</th>
<th>Abilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>I</td>
<td>A</td>
<td>S</td>
</tr>
</tbody>
</table>

### TOTAL:
SIX TYPES OF PERSONALITIES:

Holland claimed there are 6 different types of personalities in relation to the world of work:

Realistic: R type people generally prefer to work with equipment, for example, tools and machines, rather than with people. R type usually have mechanical abilities, physical strength and good co-ordination in working with objects. They like to work with their hands. They are practically minded and generally very sensible people. Examples of possible careers: people in technical fields, electricians, motor mechanics, engineering, radiologist.

Investigative: I type people generally prefer to work alone and enjoy observing, assessing, evaluating and theorizing in order to solve problems and discovering new facts. They usually like to work on ideas more than with people and things. They are logical and intellectual; they enjoy conducting experiments with scientific equipment. Examples of possible careers: biologist, geologist, chemist, laboratory assistant.

Artistic: A type people usually have artistic ability. They enjoy creating creative, original work. They are independent and tend to be emotional. They enjoy interpreting and presenting ideas, feelings and facts. They like to work in an unstructured environment. Examples of possible careers: composer, musician, interior decorator, writer, actor.

Social: They love to be around other people and tend to be helpful, understanding and friendly. They are skilled with words. They are interested in how people get along. They enjoy helping people with their problems. Examples of possible careers: teachers, psychologist, nurse.

Enterprising: E type people usually have leadership abilities. They are generally interested in money and like to guide and influence people. They are outgoing, energetic and ambitious. Example of possible careers: business executive, television producer, salesperson, supervisor.
Conservative: C type people have clear rules and are systematic in processing information. They like to work with numbers and papers. They tend to be orderly, efficient and careful. Good clerical abilities. They usually enjoy working indoors and like to organise things. Examples of possible careers: financial analyst, banker, bookkeeper, office clerk, tax expert.

People are very complex beings and therefore cannot be boxed into one ‘pure’ type. The top 2 or 3 scores achieved will indicate the more dominant traits that you have. The results of this assessment are to help you in discovering how you operate as a person. Do not stop here, remember to chat to your family and friends about the results. Do they agree? How do they see you? How do you see yourself? Remember, as you go through life, aspects of your personality can alter, so one needs to continually keep assessing oneself.

1.2 Interests

The next aspect that we need to investigate is your interests. Your interests are those things you are fond of, for example, your hobbies, and therefore enjoy doing. Research shows that people who achieve in their careers are all involved in a field that they are interested in. Pursuing an interest does not require one to be good at or proficient in the activity although interests usually develop around the things you are good at.

They could be grouped as follows:
* working with people, helping them, persuading them or managing them
* working with ideas, words, communicating
* working with science and technology
* working with facts and figures
* artistic and creative work
* working with one’s hands, practical work
* physically active work, mostly out of doors

One must be careful of falling into the trap of being attracted to one aspect of a career and then choose that career for the wrong reasons.

Don’t forget, a person’s interests often change as he grows older.
1.3 Values

To be happy in your career one day, your values have to fit with the career field which you work in. Values are all the things that are important to us. It is our beliefs and moral principles which determine how we understand the world.
Example: If money is important to you and you value it, then you need to find a career where you will be well-paid. Certainly not education!
Another example: Status. Is status important to you. Did you choose to do Physical Science even though you are not interested in it and cannot do it? Maybe you chose Science because of the subject’s status. If status is important to you, then you need to take this into cognizance when choosing a career in order to experience career satisfaction.
Let’s try and discover more about your values.
Administer value worksheet.

1.4 Abilities and aptitudes

We all have areas that we are particularly talented in. To be satisfied and achieve in your job, you should have the opportunity to do what you are good at. Our strengths need to be given opportunities to develop, that is, learning and exercise have positive effects on development of aptitude. Abilities are not necessarily based on how well one does at school.

How do I know what my abilities are?
- Past performance
- What I do well and easily
- School achievement not necessarily linked to effort.

Discuss different possible abilities:
Verbal
Numerical
Practical
Methodical
Artistic
Social
Physical

Different careers require specific combinations of abilities.
## MY VALUES – WHAT IS IMPORTANT TO ME?

<table>
<thead>
<tr>
<th>I WANT TO HAVE</th>
<th>Very Important</th>
<th>Less Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick in one column only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A comfortable life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A challenging life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An exciting life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A world of peace</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equality and non-discrimination</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family security</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence and free choice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An enjoyable life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A religious life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-respect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social recognition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>True friendship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss of contact with people</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mature love</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition and success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lots of money</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A good job</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical challenge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A chance to take risks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>And</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Find your four most important values from column 1 only, i.e. very important.

I WANT TO HAVE

1. __________________________
2. __________________________
3. __________________________
4. __________________________

<table>
<thead>
<tr>
<th>I WANT TO BE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artistic and creative</td>
</tr>
<tr>
<td>Educated and wise</td>
</tr>
<tr>
<td>Good at communication</td>
</tr>
<tr>
<td>Competent and capable</td>
</tr>
<tr>
<td>A good decision-maker</td>
</tr>
<tr>
<td>Secure</td>
</tr>
<tr>
<td>Responsible</td>
</tr>
<tr>
<td>Mature</td>
</tr>
<tr>
<td>Honest</td>
</tr>
<tr>
<td>Helpful</td>
</tr>
<tr>
<td>Ambitious</td>
</tr>
<tr>
<td>Flexible</td>
</tr>
<tr>
<td>Self-controlled</td>
</tr>
<tr>
<td>Work with my hands</td>
</tr>
<tr>
<td>Outdoors</td>
</tr>
<tr>
<td>Happy</td>
</tr>
<tr>
<td>And</td>
</tr>
<tr>
<td>And</td>
</tr>
<tr>
<td>And</td>
</tr>
</tbody>
</table>

Find your four most important values from column 1 only, i.e. very important.

I WANT TO BE

1. __________________________
2. __________________________
3. __________________________
4. __________________________
YOUR ABILITIES

THE THINGS YOU DO WELL

You may have if you and so, perhaps, you should become an

Verbal FLUENCY use a wide vocabulary, are sensitive to language, words and phrases actor, politician, preacher, teacher, translator, writer, secretary, salesman

Numerical ABILITY are good at maths, accurate with figures, like logic and abstracts astronomer, computer analyst, executive, mathematician, scientist, storeman, surveyor, teacher

Practical MANUAL AND MECHANICAL have manual dexterity, can work accurately, can solve mechanical problems architect, artisan, builder, dentist, designer, engineer mechanic, surgeon

Methodical ORDERLY LEANINGS are naturally neat and tidy, like good order, have good memory, are punctual accountant, detective lawyer, librarian, statistician, town planner, wage clerk

Artistic CREATIVE TALENTS if talented and original, able in competition with others actor, painter, designer, musician, sculptor writer

Social COMPETENCE have empathy, are at ease amongst others, can deal with difficult human situations executive, diplomat, headmaster / headmistress, personnel manager, social worker

Physical AGILITY have no physical weakness which will prevent you from doing what you want to do anything you want to be and have to do physically — often outdoors

Aptitude in various fields often required for career.

BUT ABILITY IS NOT YOUR ONLY INDICATOR FOR CAREERS CHOICE
Who Am I?

As we grow older, we need to build a strong sense of identity, of who we are. We each need to feel sure of ourselves, so that we can make our own choices. We no longer need to depend on rules set down by others. At the same time we are able to accept and value the fact that other people may have different views.

It can be difficult to recognize and appreciate our own good qualities. Some people may feel self-conscious about their appearance, others may find it difficult to talk about themselves without seeming to boast.

ACTIVITIES

» All about me?
How we look is only part of the person that we are.

» Below, is a list of statements that may, or may not, describe you. Read through the list and put an 'X' beside the statements that you think fit you. Answer as honestly as you can.

| I like myself | I don't like myself | |
| I am confident | I think friends are hard to keep | |
| I am pleasant to look at | I often react emotionally | |
| I am happy | I don't understand myself sometimes | |
| I am not interested in social problems | I laugh sometimes | |
| I often waste time | I depend on myself | |
| I am considerate | I am afraid of meeting new people | |
| I fall in love easily | I have a sense of humour | |
| I like to work | I get angry easily | |
| I have strong feelings | I often say the wrong thing | |
| I make friends easily | I am shy | |
| I do well at work/school | I have good taste | |
| I think independently | I enjoy reading | |
| I worry a lot | I do not show my feelings | |
| I have lots of energy | I am interested in social problems | |
| I prefer not to be alone | I like trying new things | |
| I laugh a lot | I am a good talker | |

» We all have positive and negative pictures of ourselves. Look at the list you have ticked.

- What are the things which you like about yourself? What qualities would you like more of?
- Are there some qualities that you value more than others?
- Are there ways in which you feel you’ve changed?
- Are there things about yourself that you would still like to change?
2. INFORMATION ABOUT THE WORLD OF WORK

2.1 Career Fields
Now that you have a better idea about who you are in relation to the world of work, let's look at the different career fields:

Art and Design and Performing Arts

Social

Medical

Trades

Science

Engineering

Commercial or Business

Outdoor/ Nature

Discuss each field in relation to its focus; personality and interest requirements; and give examples.

Give handout.

2.2 Sources of Information

It is very important to find out as much as possible about the different careers you are interested in. If you want to be a chartered accountant, find out exactly what they do before you spend 7 years training to be one. I know of someone who read for a law degree and spent 2 weeks as a magistrate, hated it and left. He went to mix paint for Dulux and never looked back!

The question is where can one find information about different careers.

2.2.1 Career books and literature: Check for these books in your school library. Alternatively, go to the public library. I.T.E.C. has a career library.

2.2.2 The internet: Rich in information. Give them a list of internet addresses.
2.2.3 Talk to people working in the field. Try and do some work-shadowing. Develop questions to ask them: for example,
- What do you do in a typical work day?
- What do you like about the job?
- What do you dislike about the job?
- What is the recommended training to prepare for the job?
- Is there someone else you think I should speak to?
- What is the career scope in this job?

2.2.4 All educational institutions have information regarding their courses. Most universities have student advisers who offer free services. Do not miss open days at the universities you are interested in. The cost of travelling to the campus is a lot cheaper than a bad choice of course or university.

2.2.5 Contact your local Department of Labour. Their services are for free and they have a wealth of resources.

2.2.6 Attend Career Expo's or Exhibitions.
<table>
<thead>
<tr>
<th>Field</th>
<th>Examples</th>
<th>Focus</th>
<th>TECH/EDU</th>
<th>UNEMPLOYMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical &amp; Mechanical Engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trades</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art &amp; Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Necessary Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examples</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A career field includes a number of careers with similar characteristics.

Some careers can fit into more than one field.
3. Information about Education and Training:

3.1 Higher Education:  
Universities offer higher learning and investigation in many fields. They award qualifications called degrees, diplomas and certificates. In South Africa we have three types of universities:

   Traditional Universities: traditional academic universities that offer mainly degrees, have a high numbers of postgraduate students and conduct a lot of research. For example, University of Cape Town.
   Comprehensive Universities: new institutions that are a combination of traditional university and a university of technology. They offer both diplomas and degrees. For example, N.M.M.U. (Used to be U.P.E. and P.E. Technikon)
   Universities of Technology: Formerly technikons. They offer certificates, diplomas or degrees in technology. For example, Walter Sisulu University of Technology.

Give handout of list of Universities in South Africa.

You may well be thinking: What requirement do I need to get into these courses? A matric endorsement is necessary for a degree course and a senior certificate will be adequate for most diploma courses. Each university and, indeed, each faculty has a specific set of admission requirements. Some courses require an access test to be written and some courses require you to calculate points according to your results.

Universities are structured into different faculties, schools and departments.
   Faculties are a number of departments grouped together:
   Humanities
   Law
   Education
   Business and Economic Sciences (Commerce)
   Health Sciences
   Engineering and Technology

3.2 Learnerships:  
A Learnership is a learning programme that leads to an occupational qualification. Learnerships include classroom-based learning and on-the-job training in a workplace. There are no costs involved for a person to go on a learnership. Employer and Sector education and Training Authority pay for the training. You sign a contract with an employer and a training provider; the contract requires the learner to work for the employer, in return for earning a monthly allowance while being trained. So the learner is able to put theory into practice. An example, the
THETA offers learnerships in professional cookery, nature guiding and tourism reception.
To apply: Contact your closest Dept. of Labour. You will be registered as a work seeker on the database of the Dept and complete a learnership application form. Also watch the media as companies advertise for learners.

So, although you earn while you learn, do not take this option merely for financial reasons.

3.3 Private Institutions:
There are approximately 100 private higher education institutions, which offer education and training in fields such as information technology, management studies, secretarial studies, public relations and marketing, communications, religion, beauty and skincare, and design. Private institutions must register with the Department of Education and their educational programmes must be accredited. Go to the www.education.gov.za for more information. One has to be very careful when choosing a private educational institution as some are operating with the sole purpose of making money and not for reasons of giving people a good education.

3.4 Funding your Studies:
Lack of finances should never be a reason to not study further. There are a number of sources of finances available to promising scholars.

- A scholarship if you have achieved high marks and have an excellent record.
- Apply for a bursary. Bursaries are mostly linked to a satisfactory academic record. Financial needs basis could also play a role. Bursaries often have conditions attached to them.
- Apply for a loan at a bank or a training institution.
- Work part time for your own studies.
- Financial merit awards are given at some universities based solely on your final matric marks. Some students have their entire tuition costs covered through this scheme. I hope you are making an important connection: MARKS ARE MONEY!
WEBSITE ADDRESSES:

UNIVERSITIES:

University of Cape Town: www.uct.ac.za
University of Fort Hare: www.ufh.ac.za
University of Free State: www.ufs.ac.za
University of Kwazulu-Natal: www.ukzn.ac.za
University of Limpopo: www.ul.ac.za
North-West University: www.nwu.ac.za
University of Pretoria: www.up.ac.za
Rhodes University: www.ru.ac.za
Stellenbosch University: www.sun.ac.za
University of the Western Cape: www.uwc.ac.za
University of the Witwatersrand: www.wits.ac.za

COMPREHENSIVE UNIVERSITIES:

University of Johannesburg: www.uj.ac.za
Nelson Mandela Metropolitan University: nmmu.ac.za
University of South Africa: www.unisa.ac.za
University of Venda: www.univen.ac.za
Walter Sisulu University for Technology and Science: www.wsu.ac.za
University of Zululand: www.uzulu.ac.za
UNIVERSITIES OF TECHNOLOGY:

Cape Peninsula University of Technology:  www.cput.ac.za

Central University of Technology, Free State:  www.cut.ac.za

Durban Institute of Technology:  www.dit.ac.za

Tshwane University of Technology:  www.tui.ac.za

Vaal University of Technology:  www.vut.ac.za
4. Integrating knowledge of self and knowledge of careers

4.1 Finding the fit: Compatible career choice form.
   Hand out Career Choice form.

4.2 Discuss and give handout of career myths and career decision-making traps.
## INTEGRATING KNOWLEDGE OF SELF AND KNOWLEDGE OF CAREERS

<table>
<thead>
<tr>
<th>The subjects I perform best at:</th>
<th>Compatible Career Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>The subjects I like most</td>
<td></td>
</tr>
<tr>
<td>My most important career values:</td>
<td></td>
</tr>
<tr>
<td>My most important interests:</td>
<td></td>
</tr>
<tr>
<td>My abilities:</td>
<td></td>
</tr>
<tr>
<td>My personality:</td>
<td></td>
</tr>
</tbody>
</table>
5. Eight Point Plan for Decision-making

1. What do we have to make a decision about?

2. What do we want from the decision?

3. Collect Information.

4. Weight up the advantages and disadvantages of each possible choice.

5. Does a decision have to be made?

6. Choosing.

7. Accepting the responsibility for the choice.

8. Review.

Give worksheet where the learners work this process in relation to choosing their career field or career.
EIGHT POINT PLAN FOR DECISION MAKING

1. WHAT DO WE HAVE TO MAKE A DECISION ABOUT?

Try to be specific and say exactly what you need to decide about.
EXAMPLE: I must decide whether to go to university and study marketing or to find a job first and study by correspondence.

2. WHAT DO WE WANT FROM THE DECISION?

<table>
<thead>
<tr>
<th>Very Important</th>
<th>Important</th>
<th>Less Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg. Chance to study</td>
<td>I need money</td>
<td>Time for sport</td>
</tr>
<tr>
<td>Remain near family</td>
<td>Meet new people</td>
<td>Work as soon as possible</td>
</tr>
<tr>
<td>A new challenge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. COLLECT INFORMATION

I start by collecting information on my VERY IMPORTANT wants first. If I cannot make a decision on the basis of my VERY IMPORTANT wants I then go to collect information on my IMPORTANT wants.

4. WEIGH UP THE ADVANTAGES AND DISADVANTAGES OF EACH POSSIBLE CHOICE

<table>
<thead>
<tr>
<th>VERY IMPORTANT:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg. University:</td>
<td>Working</td>
<td></td>
</tr>
<tr>
<td>Can study</td>
<td>Limited study time</td>
<td></td>
</tr>
<tr>
<td>Will have to leave home</td>
<td>Can remain near home</td>
<td></td>
</tr>
<tr>
<td>New challenge</td>
<td>New challenge</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMPORTANT:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg. University:</td>
<td>Working</td>
<td></td>
</tr>
<tr>
<td>Will have to spend money</td>
<td>Can earn money</td>
<td></td>
</tr>
<tr>
<td>Will meet many people</td>
<td>Will meet fewer people</td>
<td></td>
</tr>
</tbody>
</table>

Now it does appear that full time university will be more appropriate, if I can find sufficient financial support. Without it, working will probably be a better choice.

5. DOES A DECISION HAVE TO BE MADE?

6. CHOOSING

7. ACCEPTING THE DECISION

8. REVIEW
6. Taking ownership of the process

Career decision-making is not an event, in other words, you are not going to sit down tonight and decide on your career. It is a PROCESS which involves using EVERY available resource to research and investigate your post-school options before finally making an informed decision. You can, and MUST take ownership of this process. These decisions are going to effect YOUR life forever. There is an old saying: “Your attitude will decide your altitude”. Discuss attitude.

Furthermore, be aware of other influences on your decision-making. Are you following in the footsteps of parents, friends and advisors, or are you making truly your own decisions.
What barriers are there to making your own decision?
How do you make decisions? Discuss and give handout of decision-making.

I would like to challenge you today. Often when people are making study and career choices, they attempt to go for what they perceive to be the most secure and safe options. BUT, I would like to suggest that you go for what really interests, motivates and excites you and build a career base that will use and grow all you have to offer. That way life becomes an exciting adventure and does end up with you being trapped in some career field for 40 miserable years or alternatively, constantly job jumping for 40 desperate years.
Avoid taking bursaries that are not right for you.
Career choice comes alive when you fire up an idea of your own, give it a name and move forward with it.

Be Pro-active! You can do it!
Dear Mr Prince,

Psychology Masters Research Project

Thank you for granting me permission to present a career development programme, and to do a study on the impact of it, at your school.

It would be most appreciated if we could discuss the following:
- Procedure of study
- Consent forms to be given to children
- Number of children: Control group and Experimental Group
- Number of lessons
- Time available for lessons
- Suitable starting date
- Concerns

Your assistance and time is most valued.

Yours faithfully,

Jean Miles
Dear Learners,

This questionnaire forms part of a research project for a master’s thesis that addresses career decision-making issues. This study will take place over a 5 week period, once a week. You will be asked to complete a questionnaire on 3 occasions.

The questionnaire answers will be treated with confidentiality. Please note we are interested in your opinion. We would like to know what you personally think. We are interested in your honest opinion. There are no right or wrong answers! Try not to think for too long about each statement. Usually your first response is the one you come back to in the end.

Please respond to every item even if you find it difficult to form an opinion. Please ask for help whenever it is necessary.

Kind regards

Mrs Jean Miles

The aim of this questionnaire is to determine how much you agree or disagree with certain matters.

Read each statement carefully and tick ONE of the five possible responses.

**EXAMPLE:**

<table>
<thead>
<tr>
<th></th>
<th>totally disagree</th>
<th>somehow disagree</th>
<th>Neither/nor</th>
<th>somehow agree</th>
<th>totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like to attend Alphendale High School.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

If you tick 4 that would mean you somehow agree with the statement.
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<tr>
<th></th>
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<th>totally disagree</th>
<th>somewhat disagree</th>
<th>neither/nor</th>
<th>somewhat agree</th>
<th>totally agree</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>The results I achieve in Grade 11 are important for my career.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>I am studying to please my parents and teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Going out with my girlfriend/boyfriend is more important to me, than studying for my class test.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Education means more to me than watching television or sport.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>If I do my homework, I will achieve good marks.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>6.</td>
<td>I have thought about dropping out of school before I matriculate.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>The final mark I receive for grade 11 is not that important.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>If I struggle with a subject, it means I must work harder in that subject.</td>
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<td>2</td>
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<td>5</td>
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<tr>
<td>9.</td>
<td>I know my strengths and weaknesses.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>10.</td>
<td>I know the things I am good at.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>11.</td>
<td>I feel that at present I can experience to the full those things which I regard as the most important in my life.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>12.</td>
<td>I consider it important to use my abilities to the full in my future occupation.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>13.</td>
<td>I want to choose an occupation that allows me to do what I believe in.</td>
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<td></td>
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<td>14. When I am really interested in what I am doing, I can keep at it for hours.</td>
<td>①</td>
<td>②</td>
<td>③</td>
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<td>15. My interests change all the time.</td>
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<td>②</td>
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<tr>
<td>16. I find most work dull and unpleasant.</td>
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<td>②</td>
<td>③</td>
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<td>17. I feel that there is a great difference between what I am at present and what I would like to be.</td>
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<td>②</td>
<td>③</td>
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<tr>
<td>18. It does not matter what occupation I choose so long as it pays well.</td>
<td>①</td>
<td>②</td>
<td>③</td>
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<td>19. I am an effective decision maker.</td>
<td>①</td>
<td>②</td>
<td>③</td>
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<tr>
<td>20. When I start something I can usually see it through.</td>
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<td>②</td>
<td>③</td>
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<tr>
<td>21. I can usually think of ways to solve important problems in my daily life.</td>
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<td>22. There is more than one way to go about reaching a goal I set for myself.</td>
<td>①</td>
<td>②</td>
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<tr>
<td>23. I do not really know how to make a planned decision.</td>
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<td>24. I find it difficult to decide on priorities in respect of things that are important to me.</td>
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<td>25. I find it hard to make up my mind about important matters.</td>
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<td>26. I am inclined to make impulsive decisions.</td>
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<td>27. I see choosing an occupation as a trial-and-error action rather than as a planned decision-making process.</td>
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<td>28. It is unnecessary to spend too much effort on the choice of an occupation; something will turn up later.</td>
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<td>29. I am aware of related occupations in the occupational field I am interested in.</td>
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<tr>
<td>30. I know what to do to obtain more information on possible occupations I have in mind.</td>
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<td>31. I know what the most suitable training would be for the occupation that I am interested in.</td>
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<td>32. I am aware of alternative ways in which I can obtain training for a future occupation.</td>
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<td>33. I have an idea what salaries people earn in the occupational field I am interested in.</td>
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<td>34. I do not know what study courses to take to prepare for my future occupation.</td>
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<td>35. I have little or no idea of what working full time will be like.</td>
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<td>36. I seldom think about the occupation that suits me.</td>
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<tr>
<td>37. I really cannot think of any occupation that suits me.</td>
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<td>38. Entering an occupation is the only way in which I can learn whether I might like it.</td>
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<tr>
<td>39. I think I understand how to apply my own abilities and potential in the occupation I am considering.</td>
<td>①</td>
<td>②</td>
<td>③</td>
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<tr>
<td>40. I know how my interests and abilities might relate to different kinds of jobs.</td>
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<tr>
<td>41. It is important to know how a certain occupation will affect my lifestyle.</td>
<td>①</td>
<td>②</td>
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<tr>
<td>42. The closer my personality and working environment relate to each other, the more job satisfaction I should experience.</td>
<td>①</td>
<td>②</td>
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<tr>
<td>43. In making an occupational choice, I need to know what kind of person I am.</td>
<td>①</td>
<td>②</td>
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<tr>
<td>44. I would very much like to work an occupational environment in which I can be myself.</td>
<td>①</td>
<td>②</td>
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<td>④</td>
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<tr>
<td>45. I do not yet know my abilities and the world of work well enough to know how they can best fit together.</td>
<td>①</td>
<td>②</td>
<td>③</td>
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<tr>
<td>46. It seems probable that circumstances will force me to accept a job to which I am not suited.</td>
<td>①</td>
<td>②</td>
<td>③</td>
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<tr>
<td>47. I think most people have the ability to do well in any kind of job.</td>
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<td>48. I have a clear idea of what steps to take to plan my career.</td>
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<tr>
<td>49. It is very clear to me what I have to do to reach my career goals.</td>
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<td>50. I know where to contact a trained professional (such as a guidance counsellor) if I have a career problem that I wish to discuss.</td>
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<td>51. I have already discussed my career plans with an adult whom I know very well.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>52. I feel capable of completing all the necessary training for the career I am considering.</td>
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<td>2</td>
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<tr>
<td>53. I regard career planning as a process, that continues throughout life.</td>
<td>1</td>
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<tr>
<td>54. I have difficulty in preparing myself for the occupation I want to enter.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>55. There is nothing I can do if my parents do not have the financial means to provide for my further education.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>56. I think it is unnecessary to plan a career as there is nothing I can do to make things happen.</td>
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<tr>
<td>57. In the light of his or her abilities there is only one right job for a person.</td>
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<td>totally disagree</td>
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<tr>
<td>58. Only time can tell how I reach my goals, therefore I shall not worry about them now.</td>
<td>1</td>
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Please complete the following details:

Name................................. Date.................................

Home Language........................ Gender.................................

Age.................................

THANK YOU COMPLETING THIS QUESTIONNAIRE