

THE EFFECT OF
A
CAREER GUIDANCE PROGRAM
ON
THE CAREER MATURITY LEVELS
OF
GRADE 11 AND 12 LEARNERS.

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NOTICE

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ABSTRACT

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The effect of a career guidance program on the career maturity levels of grade 11 and 12 learners.

Key Words: Career maturity, career guidance, career development, career planning, career education, career choice.

Supervisor: Prof G v/d M Sieberhagen

The single most common decision that people between the ages of 16 years and 22 years need to make is that of their career choice. Research in the field of career guidance has shown that the world of work is changing. It is generally accepted that an individual will be presented with many opportunities in the world of work and these give rise to the notion of multiple careers.

To predict accurately what these opportunities might be is impractical and naive, if not impossible. Career guidance counsellors are now expected to understand the inter-relationships between occupations and occupational groups; an understanding that is vital when providing a comprehensive and realistic career guidance service. The career guidance processes or programs that counsellors use, need to allow for the identification of base or entry level careers that will provide opportunity for both horizontal and vertical career movement.

While the schooling system has traditionally been the primary role player in preparing learners for the world of work, recent budgetary cuts have forced schools to focus on academic subjects, and, as a result, career guidance as a subject has become ancillary to the school syllabus. This situation is unlikely to be remedied unless career guidance

becomes an examinable subject as are mathematics, physical science, biology and so on.

A literature study surrounding career guidance practices in South Africa and career choice and development theories from around the world, suggest that existing career guidance programs in South Africa need to be restructured to allow for a more comprehensive solution for learners, that need to make a career choice.

The "PACE" career guidance program was designed to enhance the career knowledge of learners, increase their self awareness in relation to careers, and ultimately to accelerate the career maturity process.

Learners from schools in East London were exposed to the program, with the intention of determining the effect of the program on their career maturity levels. Whilst certain elements which constitute career maturity were not influenced by the program, results obtained from the research indicated a significant increase in the overall career maturity level of these learners.

Resulting from this dissertation, recommendations have been made relating to the length of a career guidance program, the point of departure and the point of exit, the importance of balancing realism with circumstances, and the necessity for career guidance practitioners to possess a thorough understanding of careers and the various paths that careers may follow. Suggestions regarding further research in the area of career guidance are also provided.

CHAPTER 1

INTRODUCTION

- 1.1 Background and general orientation
- 1.2 Problem formulation
- 1.3 The objectives of the dissertation
- 1.4 Basic hypothesis of this research
- 1.5 Research method
- 1.6 Chapter overview

CHAPTER 1

INTRODUCTION

This dissertation is about the effect of a career guidance program, on the career maturity levels of grade 11 and 12 learners.

This chapter will provide some background to career guidance in South Africa. It will highlight the macro problem facing career guidance professionals. It will also focus on the micro problem relating to career guidance in South Africa specifically. It will clarify key concepts and definitions pertaining to the dissertation, and will state the objectives of the study, the basic hypothesis and the research method.

1.1 BACKGROUND AND GENERAL ORIENTATION

Changes in the world of work and in the relationship between individuals and work form part of everyday existence. Technological advances, the 'global village syndrome' and world-wide political changes, among other factors, are modifying what people do at work, how and where people work, and in many cases how long they continue to do whatever they are doing. People are increasingly believing that work can and should be meaningful and satisfying, and that career planning can make that more likely to occur (Isaacson, 1986).

Tertiary education institutions in South African are experiencing an alarming drop out rate at first and second year level. Insufficient planning and information gathering by applicants during the career selection and planning process is thought to be one of the reasons for this high drop-out rate. Many grade 12 learners do not know what they are planning on doing after matric. Such high figures place a tremendous emotional burden on parents and learners, and have a financial impact on parents and the economy as a whole. The need for sound career guidance at secondary school level, is, therefore, becoming increasingly relevant.

Career guidance should, in the first instance, be aimed at increasing the readiness of individuals to make career-related decisions. Olivier as far back as 1991 suggested that career guidance facilities, particularly at schools, failed to effectively facilitate the

transition from school to the world of work (Olivier, 1991). This view was supported by research conducted by Fourie in 1992 who suggested a real need for a career-orientated education system that facilitates the transition from school to the world of work (Fourie, 1992). This need, which still exists today, some ten years later, is intensifying as an ever increasing number of career opportunities arise, thus complicating the transition from school to the world of work.

The above situation is unlikely to be rectified as career guidance departments at schools continue to be scaled down. Learners are leaving grade 12 with uncertainty regarding their careers. A career guidance program, namely the "PACE" career guidance program, has been designed to promote career maturity among learners at schools. Its aim is to help them to make more realistic career choices.

1.2 PROBLEM FORMULATION

1.2.1 The macro problem

Deciding on, and pursuing a career is a major problem for youth who are faced with many life-tasks.

Researchers in the field of career guidance have emphasised that the world of work is changing. It is generally accepted that the notion of one career for life is no longer applicable. In the complex and changing world, the idea of "one-life-one career" is being replaced by an expectation of having multiple careers during an adult's working years (Brown & Brooks, 1990). With the trend moving towards that of multiple careers, the following question arises: Does career guidance have any relevance at all?

This then raises the question as to whether career guidance professionals should be preparing individuals narrowly for specific careers, or be preparing them more broadly for a life of work. Brown and Brooks (1990), on reviewing career forms, suggest that mixed-form careers, rather than the traditional linear careers of the past will feature prominently in the future.

The way in which the world of work is changing places pressure on the adolescent in terms of sound career planning. It is essential for educationalists and career guidance

professionals to begin the career education and development process as early as possible to help individuals to successfully select careers and possible career paths.

This is particularly true in South Africa. Widespread retrenchment, low productivity levels, and slow economic growth, add to the pressure on adolescents facing career decisions. The new political dispensation has given considerably more individuals the opportunity to acquire skills. This has impacted on the number of private tertiary education institutions opening around the country. Consequently, there is an added dimension to the career-selection process as the individual must now select a career as well as a tertiary education institution that is accepted and recognised by industry.

Affirmative action policies will also have an impact on career selection. Industry is affording greater opportunities to people from previously disadvantaged groups. White adolescents, therefore, need to consider very seriously, the option of self-employment and this, in turn, will have an influence on career choice.

Several questions arise when considering the macro problem. Does career education, guidance and development have any relevance, considering the high number of career changes that individuals will undergo during their working lives? Should career guidance practitioners concentrate on helping individuals to select broad career categories, rather than specific careers? Should greater emphasis be placed on the educational aspects of career selection, in terms of career information, tertiary institution information, and other practicalities surrounding the career choice process?

Finally, questions arise about the role that career maturity plays in the career selection process. Should career guidance programs place greater emphasis on the career maturity aspect, thereby enabling learners to make better informed career decisions?

Brown and Brooks (1990) suggest that career choice is a developmental and maturation process that needs to be preceded by a career education process. The volatile labour market and its implications on career choice should be included in a career education process. To help people have a positive relationship with their work career guidance counsellors should aim to enhance their clients' career maturity levels.

Before examining the micro problem it is necessary to define certain key concepts in the field of career guidance, education and development. It is important to draw a clear distinction between concepts to avoid confusion.

Career

Gibson and Mitchell (1995:308) define a career as "... the totality of a person's work experiences within his or her life span".

Zunker (1990:38) defines a career as follows: "(It) consists of the activities and positions involved in vocations, occupations and jobs as well as related activities associated with an individual's lifetime of work."

Healy (1982:5) defines a career as "... a sequence of major positions occupied by a person throughout pre-occupational, occupational, and post-occupational life. It includes all work-related positions such as student, employee or employer, and pensioner."

Career education

Career education refers to a movement towards a systematically planned investigation and analysis of careers in respect to a person's interests (Gibson & Mitchell, 1995:334).

Isaacson (1986: 22) defines career education as "... an effort aimed at refocusing education and the actions of the broader community in ways that will help individuals acquire and utilise the knowledge, skills, and attitudes necessary for each to make work a meaningful, productive, and satisfying part of his/her life".

Jesser (1976:20) suggested that a complete career education program includes awareness of the world of work, broad orientation to occupations, in-depth exploration of selected occupational clusters, career preparation and understanding of economic systems.

Career planning

Career planning can be defined as the process through which people acquire knowledge about themselves (their values, personality, preferences, interests, and abilities) in relation to the world of work in the attempt to match these two constructs. It is the process in which long- and short-term career goals are determined (Schreuder & Theron, 1997:15).

According to Milkovich and Boudreau (1994:447), career planning is the process through which individuals identify and implement steps to attain career goals.

Beach (1985:234) suggests that career planning is a personal process of planning one's work life. It includes evaluating one's own abilities and interests, examining career opportunities, setting of career goals, and planning appropriate developmental activities.

Career guidance

Healy (1982) suggests that career guidance is a specialised intervention focusing on career implementation and planning.

Sears, according to Isaacson (1986), calls career guidance a one-to-one or small group relationship between clients and a counsellor with the goal of helping the clients integrate and apply an understanding of self and the environment to make the most appropriate career decisions and adjustments.

The above definitions suggest that career guidance is a counsellor directed career planning process. It is for this reason that the term "career guidance program" is used as the independent variable (IV) for purposes of this dissertation.

Career development

Langley, Du Toit and Herbst (1992a: 2) define the term career development as "... a life-long process in which the individual finds him or herself fulfilling work-related tasks in a particular sequence. These tasks include preparatory phases for admission to a particular occupation, entry to the occupation, progress therein, possible change of occupation and eventual retirement from the world of work".

Beach (1985) refers to career development as the planning of one's career and the implementation of such career plans through education, training, job search, entry, and work experience.

Career maturity

According to Langley, Du Toit and Herbst (1992a:3), Super defines the term career maturity as "... the extent to which a person is able to master those career developmental tasks that are applicable to his/ her particular stage in life".

Career maturity can be identified by six dimensions: orientation to vocational choice; information and planning; consistency of vocational preferences; crystallisation of traits; vocational independence; and wisdom of vocational preferences (Zunker, 1990). The fostering of these dimensions will lead to the development of career maturity. These dimensions are consistent with the work-related tasks defined by Langley, Du Toit and Herbst (1992a) in their definition of career development.

In essence, career maturity refers to the readiness of an individual to make an 'informed' career decision.

The relationship between career maturity and career guidance

Career maturity is the result of a career development process. Langley, Du Toit and Herbst (1992a) see career development as a life long process in which the individual finds him or herself fulfilling work-related tasks.

Super, according to Langley, Du Toit and Herbst (1992a), suggests that the level of an individual's career maturity is directly influenced by the degree to which he or she is able to master those career development or work-related tasks relevant to his/her particular life stage. The emphasis here, is that the career maturity of a person is relative to his/her life stage and thus age group.

The above two definitions suggest that career maturity will be increased if the individual is able to master career development tasks, which are concomitant with the individual's particular life stage. The implication is that a career guidance program

should be aimed at helping an individual to more rapidly master certain career development tasks, thus increasing the individual's career maturity level.

Current career guidance efforts in South African schools (to the extent that it is indeed offered to learners) concentrate on career education as defined by Jesser (1976). Other career planning tasks such as matching of self to the world of work, preparing for entry, gaining some experience before choosing a career, etc are not included in the career guidance syllabus. This researcher's investigation of career guidance programs in South Africa seems to indicate a tendency to focus on providing learners with a list of alternative career options, rather than on helping such learners to enhance their career maturity so that informed career decisions can be made.

Nearly three decades ago Laubscher (1977:14) asked the following question: "If career decisions require a certain level of maturity, how can decisions requiring maturity be made by immature adolescents"? This question describes the essence of what a career guidance program should be trying to achieve - the raising of career maturity to levels where individuals can make informed career decisions.

Career guidance programs should no longer concentrate merely on providing individuals with possible occupational routes to follow, but rather on enhancing the career maturity of those individuals, by making use of well-constructed career education and planning programs.

1.2.2 The micro problem

The issue of career guidance in South Africa is a contentious one. Budgetary cuts are forcing schools to focus on their core academic subjects. The net result has been a downscaling of career guidance departments. In the past there seemed to be no shortage of career guidance facilities for white learners, although these are now rapidly being phased out of ex-model C schools.

The majority of Black, Coloured and Indian learners barely had access to any such facilities in the past. Most township and rural schools have never had any form of a career guidance department.

In 1981, the Human Sciences Research Council conducted research into the situation surrounding career guidance in South Africa. The Human Sciences Research Council (1981) - Report of the Work Committee: Guidance, mentions the following findings:

- There is a drastic shortage of career counsellors to provide person to person counselling.
- The bulkiness of the career guidance syllabus makes it difficult to offer career guidance with any thoroughness.
- The guidance program is burdened with too many other teaching-related tasks and career guidance suffers as a result.
- There is a need to expand the current level of service relating to career guidance.
- Some career guidance practitioners regard career guidance as a once-off occurrence, rather than as part of a development process.
- Insufficient emphasis is being placed on the importance of career research in the career guidance system.

These problems were identified more than 19 years ago and, based on the observations and experiences of this researcher, most of them still exist today.

Career guidance programs generally take on two forms: counsellor-assisted programs and computer-assisted programs.

Counsellor-assisted programs refer to a learner-counsellor relationship, where two way interaction between the learner and counsellor forms the basis of the career guidance process. Research on counsellor-assisted programs has indicated a positive increase in the career maturity levels of grade 12 learners (Laubscher, 1977). It must, however, be said that at the time of this research, suburban schools (where the research was conducted) were still playing a very active role in the career guidance process.

This researcher's observations and experiences indicate that many counsellor-assisted career guidance programs have a three-phase approach to guidance and seem to focus

only on certain of the elements that should comprise a career guidance process. They focus on: identifying learners' interests, personalities and aptitudes. This is in accordance with the trait and factor theory which is discussed in chapter 2. Counsellor-assisted career guidance programs also focus on the feedback of results and on report writing. These three-phase programs are the most common in the career guidance 'industry'.

Computer-assisted career guidance (CACG) programs refer to a learner-computer interaction. Increasing attention is being paid to computer based systems as a means to enhance career development (Ackhurst *et al.*, 1999). Important trends in such systems include the emergence of Career Information Delivery Services (CIDS), the System of Interactive Guidance and Information (SIGI), and the DISCOVER program. These programs promote the career maturity of individuals through an interactive means of self assessment and the provision of career information via various routes (Pretorius, 1999).

The most widely used South African computer-assisted career guidance program is the MENTOR program, which is based on the American DISCOVER program. The computer prompts learner responses and then processes these responses to provide an automated form of feedback to the learner. According to Professor R. Langley (1994) computer-assisted career guidance (CACG) systems do seem to enhance the career maturity of learners, but fail to provide sufficient two-way communication. The counsellor-learner interaction, on the other hand, provides a qualitative element to the career guidance process by allowing interaction between the counsellor and the learner.

Even though computer-assisted programs do not have a personal feedback and report-writing element to them, they recognise the work environment as an important element in the career guidance process. Holland's theory, which is discussed in chapter 2, emphasises the importance of the environment in the career decision-making process. Computer-assisted programs play an important role in the provision of affordable career guidance to large numbers of learners, even though it fails to offer two-way interaction between a counsellor and a learner.

The poor state of school career guidance systems has made it necessary to develop a career guidance program, which encompasses all elements of career planning and

guidance. The program should allow for learners to undergo sufficient self-evaluation and matching of themselves to the world of work, under the guidance of a counsellor.

This discussion leads to the formulation of the following research questions:

- What is the situation surrounding career guidance in South Africa?
- What are the elements that make up a sound career guidance program?
- Is it possible to include most of these elements into a single career guidance program?
- Will a career guidance program which includes many of these elements increase the career maturity of learners who are exposed to it?

1.3. THE OBJECTIVES OF THE DISSERTATION

In order to obtain answers to the abovementioned questions, the following objectives are established for this dissertation :

1.3.1 General Objectives

The general objectives of this dissertation are to determine the elements that make up a good career guidance program, design such a program, and determine its effect on the career maturity of learners.

1.3.2 Specific Objectives

Based upon the problem formulation, the following specific objectives are established for this dissertation :

- To identify the situation surrounding career guidance in South Africa.

- To identify, from a review of the literature, those elements that constitute a sound career guidance program.
- To design a career guidance program that will include all or most of these elements.
- To determine whether this program, when applied to a group of learners, increases their career maturity levels.

In order to meet the above objectives, a basic hypothesis must be established.

1.4 BASIC HYPOTHESIS OF THIS RESEARCH

The basic hypothesis of the dissertation is that the "PACE" career guidance program increases the career maturity of learners in grades 11 and 12

1.5 RESEARCH METHOD

To meet the research objectives, the dissertation consists of two sections: a literature overview and an empirical investigation.

As far as the literature overview is concerned, a literature search, using key terms such as career, career choice, career guidance, career education, career development, career planning, and career maturity, was undertaken.

From a literature study, the elements that make up the career selection process will be identified. These elements and their implications will then be used to design a career guidance program, namely the "PACE" career guidance program.

As far as the empirical investigation is concerned, a group of grade 11 and 12 learners will be subjected to this "PACE" career guidance program.

1.6 CHAPTER OVERVIEW

In order to reach the objectives of this study and to adequately test the hypothesis the format of this dissertation is as follows:

- In chapter 2 the status of career guidance in South Africa is outlined in detail.
- In chapter 3 different career development theories are presented and discussed in terms of designing a career guidance program.
- In chapter 4 important elements in the design of a career guidance program are determined and discussed.
- In chapter 5 the program incorporating the identified elements is set out, and the research method is discussed.
- In chapter 6 the results of the study are presented.
- In chapter 7 the dissertation is summarised and a conclusion is presented.

1.7 CHAPTER SUMMARY

In this chapter the background and motivation for the dissertation was outlined. The importance of career maturity in the career selection process was discussed, and a discussion of the macro problem outlined the reasoning for this. The micro problem briefly described the existing career guidance programs in South Africa, and made recommendations on the career selection process. The problem formulation and objectives of the dissertation were then stated, as well as the basic hypothesis that resulted from these. In conclusion, the research method and chapter overview were presented.

In chapter 2, a discussion surrounding the nature of career guidance in South Africa, and existing career guidance programs in South Africa, is offered.

CHAPTER 2

THE NATURE OF CAREER GUIDANCE AND EXISTING CAREER GUIDANCE PROGRAMS IN SOUTH AFRICA.

2.1 Introduction

2.2 The situation surrounding career guidance in South Africa

2.3 The need for career guidance programs in South Africa

2.4 The types of career guidance programs in South Africa

2.5 Chapter summary

CHAPTER 2

THE NATURE OF CAREER GUIDANCE AND EXISTING CAREER GUIDANCE PROGRAMS IN SOUTH AFRICA.

2.1. INTRODUCTION

Chapter 2 highlights the circumstances surrounding career guidance in South Africa. Shortfalls in the current system are discussed with specific emphasis on the need for a more comprehensive career guidance program.

2.2 THE SITUATION SURROUNDING CAREER GUIDANCE IN SOUTH AFRICA

Career guidance is provided by three different sectors in industry. The primary career guidance drive is provided through the schooling system, but is slowly being whittled away due to financial pressures. Research findings by Watson and Stead (1999) supports this statement. They found there to be no formal career guidance within schools. Another major career guidance provider is parastatal organisations such as the Human Sciences Research Council (HSRC). Lagging far behind, is career guidance provided by the private sector. Whilst there has over the past two years been an increase in the number of private career guidance practitioners in the marketplace, there are only a few private organisations whose primary aim is to provide career guidance programs.

In the past, efforts by schools to provide career education and guidance were regulated by a report drawn up by the Committee for Differentiated Education and Guidance in 1971 (Laubscher, 1977). According to Laubscher (1977), Section 18.5.3. of this report recommended a career guidance program that should be used in the schooling system in South Africa. This report suggested that guidance should refer to providing (to learners) information regarding job structure and job availability, as well as providing counselling to enable learners to eventually make career related decisions and accept the responsibility associated with these.

According to Laubscher (1977), the guidelines set out by the Committee further suggested that a school career guidance system should; firstly, provide a general and

vocational information service to assist learners in obtaining information on occupations available. This suggestion by the Committee, even though it was made more than twenty years ago, is supported by Gianakos (1999), who suggests that a quality decision is more likely when individuals are able to rationally and systematically evaluate career related information. Secondly, such a guidance program should make provision for a self-inventory or self-assessment service, i.e. a service concerned with assisting individuals in obtaining information pertaining to their own abilities, interests, values, etc. The principle of encouraging learners to take greater responsibility for their own career decisions is becoming more prevalent. The introduction of computer assisted career guidance programs, which is a relatively recent approach to career guidance, allows learners to assess themselves in relation to their needs (Pretorius, 1999). Thirdly, a counselling service aimed at helping the individual to evaluate his or her personal assets and liabilities in relation to the opportunities and requirements of available careers should be established. It is this third suggestion by the Committee that emphasises the importance of interactivity in the career guidance process.

According to Laubscher (1977), the Committee for Differentiated Education and Guidance suggested that career guidance at school should concentrate on providing information (career education) on occupations; helping learners to develop a better understanding of themselves (self education); and finally facilitating a match between the previous two steps with the aid of a counsellor (career planning and career guidance). The process spelt out in this report, would be ideal for enhancing the career maturity of learners. This process is, however, not being carried out in schools.

In an article written by Hoffmann and Maree (1992), it is suggested that the school career guidance system fails to meet its objectives. They support this by referring to industrial indicators such as low productivity indexes, high absenteeism levels, continual retraining, high labour turnover and disruptive labour relations. They further suggest that these problems are caused by the inability of the current guidance systems to effectively develop existing manpower.

Despite changes and advances in career guidance theory there are to date no career guidance theories that have been specifically developed in South Africa for South Africa's diverse populations (Watson & Stead, 1999). The proposed school career guidance system has remained unchanged, excepting that it has now been included into

the learning are “Life Orientation”, which also includes aspects such as drug abuse, HIV, teenage sexuality, coping with stress, teenage suicides, and dealing with peer pressure. This has had a negative effect on the time allotted to career guidance.

To add to this, the current economic climate has not helped the career guidance cause. The rationalisation of educational services has demanded that career guidance counsellors at schools also take on additional academic teaching functions. This has not only shifted the focus away from career guidance but has also reduced the time allocated to career guidance, making it difficult to offer a service of any real quality. This situation occurs mostly in State-aided, public schools in South Africa. Most non-aided, private schools on the other hand do have full time counsellors whose primary role is to offer counselling services to learners experiencing problems, not exclusively career choice problems.

The dual role of teaching an academic subject together with offering career guidance, amongst a number of other life skills topics means that guidance teachers are often overburdened and are considered to be teachers first, and career counsellors second.

As careers become increasingly specialised and the time available for research is reduced, teachers find that their own career knowledge is inadequate. This negatively affects the quality of the career education they can offer their learners. While some schools are, to a degree, able to provide career education to their learners, the actual self-awareness and specifically the career guidance aspect of the syllabus is often not given sufficient attention. This, in turn, has led to a greater demand by the parents of learners, for external career guidance alternatives from parastatal institutions such as the Human Sciences Research Council, universities, the Department of Labour, as well as independent guidance practitioners.

Career guidance that is being offered at schools fails to provide the individualised attention that learners needed during the career selection process. Parastatal organisations such as the Human Sciences Research Council, universities, and private career guidance practitioners, on the other hand, are able to provide this individualised counselling.

While career guidance programs at schools did in the past focus on career awareness, self-awareness, and on the career exploration needs of learners, they no longer do so. A

career guidance program needs to include these elements, and in addition, include elements that will concentrate on career decision-making, preparation for acceptance into the career, and longer term career planning.

2.3 THE NEED FOR CAREER GUIDANCE PROGRAMS IN SOUTH AFRICA

It was mentioned in chapter 1 that tertiary education institutions have an alarming drop-out rate amongst their first and second year learners, and that 70% of matriculants do not know what they will do after they have completed their schooling. This situation has not come about overnight, but is rather a symptom of many years of neglect in the area of career guidance at schools, especially township and rural schools that have never had any form of career guidance.

A shortage of career guidance interventions is by no means the only cause for so much uncertainty among matriculants. It is believed that a major cause for the high drop-out rates is the fact that English or Afrikaans is not the first language of most matriculants. Many matriculants will barely cope with the linguistics in an employment interview let alone first year tertiary study. It is for this reason that certain universities such as UNISA encourage students whose home language is not English or Afrikaans, to take English (UNISA course material is presented mainly in English) in their first year of study.

The issue of language proficiency should not however detract, from the relevance of career guidance, for learners needing to make a career decision.

Historically in South Africa, career guidance interventions have been focused upon white males and white females in grade 12. While white males were guided into business and the professions, white females were frequently sidelined into the more clerical and social careers. Research undertaken by Marais and Havenga (1989), some 10 years ago, suggested that within 20 years of their research, more and more women would be entering the professional and the business world. This has proven to be correct. A Mail & Guardian special education supplement (The Editor, 1998), reported a significant increase in the number of female students in disciplines other than the humanities. In the 1970s, 39% of white women were actively participating in industry. By the 1980s, this figure had climbed to 43% and was steadily on the increase. The accomplishments and vocational aspirations of young women are often restricted by the

traditional roles and values that are applied to women. These role stereotypes are rapidly fading and women are increasingly entering the more stereotypical male careers, such as engineering, agriculture and commerce. It is incumbent upon career guidance programs to contribute towards eliminating these age-old stereotypes.

Possibly the greatest need for career guidance is amongst the Black and Coloured communities. When career maturity levels of Black and Coloured learners were compared to their White counterparts, the results indicated that both Black and Coloured groups had significantly lower career maturity scores than their White counterparts. These studies were compared to similar studies done in America, and although similar results were found, none of the American studies reported differences of the same magnitude as in South Africa (Reid-Van Niekerk & Van Niekerk, 1990). Although the researchers admit that cultural aspects could account for the large differences, they felt that lack of exposure to basic career guidance was a major influencing factor. Many learners in South African rural areas are so far removed from westernised career concepts, that their scope of career choice is drastically reduced. It is generally recognised that educational facilities and the standard of education of township and rural schools, is not on a par with education standards set at suburban schools. Most Black learners have in fact never received career guidance at school, while such services have been available in White schools for many years. These findings, therefore, suggest that there is a desperate need for career guidance interventions to be directed at both the Coloured and Black population groups (Reid-Van Niekerk & Van Niekerk, 1990).

As legislation begins to impact on affirmative quotas in companies, more vocational opportunities are opening up for black youth. This suggests that now, more than ever, the need exists for a major effort to be made to increase the vocational maturity of black school-leavers, through intensive career guidance programs. Hickson and White (1989) suggested an urgent need for the development of career guidance programs that could be equally effective for all race groups in South Africa. This point has recently been supported by the Employment Equity Act, 55 of 1998, which has legislated the use of culturally fair assessments. Attempts by Government to expedite racial quotas in the workplace are emphasised by the introduction of the Employment Equity Act, 55 of 1998. Current legislation clearly underlines the need for effective strategies to manage the career development of black workers. It is important that this process begin much earlier in the career selection process.

Although white South African school-leaving males were amongst the advantaged when it came to career guidance, they too find themselves in turmoil when it comes to making career decisions. In addition to schools reducing time spent on career guidance in the classroom, there is a perception among this group that their job opportunities are becoming increasingly limited. Whether this perception turns out to be real or not remains to be seen, but it nevertheless has an impact on career guidance programs. Career guidance practitioners need to be aware of this perception as it will influence the nature of the career guidance provided. It brings to the fore the importance of self-employment, and the identifying of careers that lend themselves towards small business opportunities. Industry leaders such as Bobby Godsell (Anglo America), Nicky Oppenheimer (De Beers), and Cyril Ramaphosa (Johnnic) suggest that small to medium size business will lead the economy in the future.

There is clearly a great need for more career guidance programs and practitioners. According to Hickson and White (1989), only 9% of a total target group of 400 800 young people between the ages of 12 and 24 in Metropolitan Johannesburg (those regarded as being most in need of career guidance), had any access to individual career guidance. When this percentage is broken down into components, it is apparent that 32% of Whites, 2% of Coloureds, 3% of Asians, and only 1% of Blacks had access to some kind of career guidance service. The researcher has been unable to source more recent statistics specifically relating to accessibility of career guidance services. The figures nevertheless indicate that career guidance services were more prevalent amongst white learners, and that 68% of this group had no access to career guidance.

The situation in 2001 is not much different than in 1988. Whilst the demographics in the ex-model C schools (now called public schools) have shifted towards a more representative demographic, the majority of white learners still attend these schools, whilst the majority of black and coloured learners still attend township and rural schools.

Generally, research seems to indicate that thorough, effective, multi-cultural career guidance programs are sadly lacking, and further research is of fundamental importance (Langley & Dlamini, 1993). This viewpoint is supported by Watson and Stead (1999) who suggest that despite changes and advances in career development theory there are

to date no career theories that have been specifically developed in South Africa for South Africa's diverse populations.

2.4 THE TYPES OF CAREER GUIDANCE PROGRAMS IN SOUTH AFRICA

There are two basic types of career guidance programs in South Africa: Computer Assisted Career Guidance (CACG) programs, and Counsellor Directed Career Guidance (CDCG) programs. Computer assisted programs are a relatively new concept in South Africa. They have been designed and developed by the Human Sciences Research Council. A study by Langley (1994), indicated that the career maturity of participants does increase after exposure to a CACG program.

A CACG program is primarily based upon trait-factor theories which emphasise the use of diagnostic tests. Computer-assisted career guidance programs attempt to find a match between the individual and a career by focusing on several variables. It matches careers with variables such as interests, job environments, salary scales, and school subjects. The program cannot, however, combine these variables into a meaningful whole and then link them to a career, but it rather matches each variable individually with careers. The program also fails to consider variables such as personality, aptitude, general intelligence, and behavioural attributes.

A positive aspect of the CACG program is that it incorporates a career education element. The opportunity for two-way interpersonal interaction is, however, not allowed for. Interpersonal interaction is important for stimulating introspection, and allowing for the combination of all influencing variables into a meaningful whole, so that career matching can take place.

Counsellor-directed career guidance programs on the other hand, do allow for the interpersonal interaction that is lacking in the computer-assisted career guidance programs.

Existing counsellor-directed programs are also primarily based upon trait-factor theories but focus on measuring abilities, interests and personality. These programs seek a successful match between the traits of the individual and the requirements of the work environment (Watson & Stead, 1999). In addition they also allow for two-way

interaction between the counsellor and the individual. Research on counsellor-directed programs indicate that they do have a positive increase in the career maturity levels of individuals (Langley, 1994).

Counsellor-directed career guidance programs follow a standard process, which is shown in figure 1.

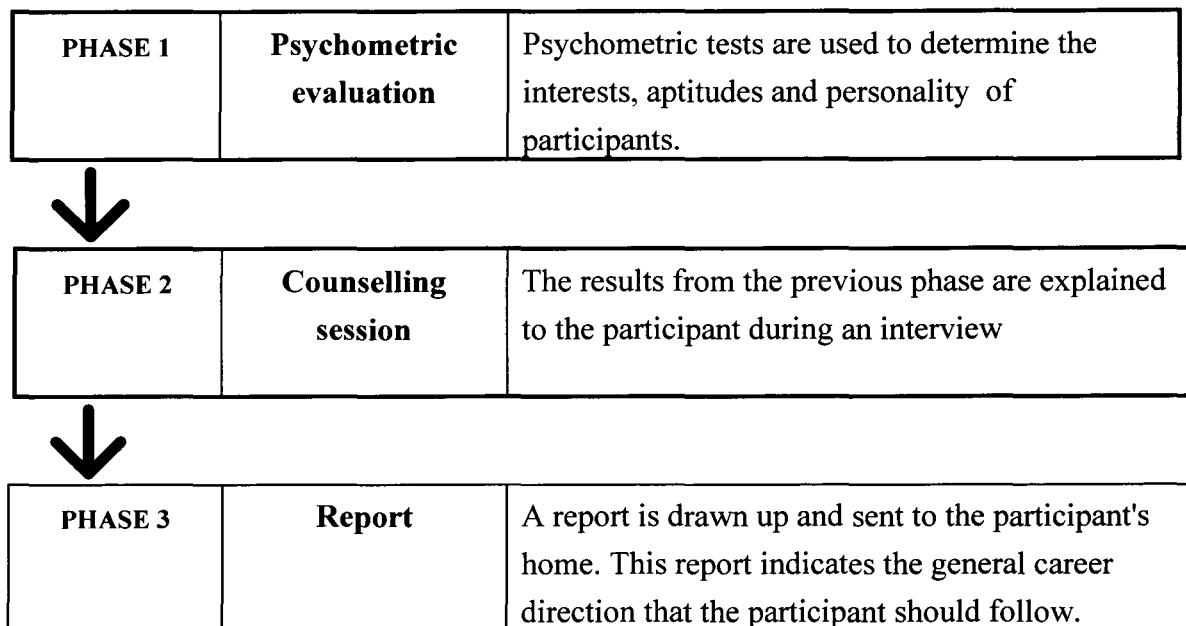


FIGURE 1: A typical counsellor-directed career guidance program

The above process (figure 1) is a typical Counsellor Directed Career Guidance (CDCG) program. Phases one and two of this career guidance process can be equated to the awareness stage of Isaacson’s (1986) career selection model, while phase three of the career guidance process can be equated to the exploration stage of Isaacson’s (1986) model (see figure 4). A shortfall in the above process is that it lacks a career education component, prior to the psychometric evaluation.

Computer assisted career guidance (CACG) programs, fail to incorporate phase two (counselling session) of the above career guidance process. They do however incorporate a comprehensive career education process. This researcher’s findings from discussions with individuals who have been exposed to CACG programs, show that such programs do provide career direction, but are sometimes inaccurate due to insufficient information gathered and analysed by the computer program. Examples

provided include the following: individuals have been recommended to study medicine, but are poor at mathematics and science, individuals have been recommended to follow architecture, yet have never even drawn so much as a picture. Certain individuals report that it was recommended that they do a practical trade when they are "A" grade learners. Parents too, have indicated that they were not given sufficient opportunity to discuss program results, and would prefer to have been part of the process.

There does not seem to be a career guidance program in South Africa presently which incorporates all the stages of a career selection process as proposed by Isaacson (1986) (see chapter 4). The career guidance and career education components of Isaacson's model (awareness and exploration) are well catered for, but long term developmental components (decision-making, preparation and employment), are still absent in current career guidance programs. A long-term planning approach could further enhance the career maturity of individuals who undergo career guidance programs.

The researcher believes there would be value in developing a career guidance program that would include the positive aspects of both computer-assisted programs and counsellor-directed individual and group programs, while simultaneously including a developmental element.

Before attempting to design a career guidance program, a review of various career guidance theories will be done in chapter 3. This review will provide an indication of the elements that a career guidance program should contain.

2.5 CHAPTER SUMMARY

This chapter suggests that a career guidance framework for schools is available and if, implemented, could have a significant effect on the career maturity of learners. The problems facing schools, however, do not allow for implementation of the framework, and the need for external career guidance facilities has thus increased dramatically.

Existing career guidance programs concentrate on either the assessment and counselling aspects or the assessment and education aspects of career guidance, but very few concentrate on both. There are no career guidance programs that combine assessments with career education and counselling, and also focus on long term career planning.

By beginning the career guidance process before the psychometric evaluation phase, and then by including a long term career plan after the counselling and report phase of the process, changes the nature of such a career guidance program towards a more developmental approach by emphasising the element of planning.

Hereby the first research question has been answered and the first objective reached, namely to identify the situation surrounding career guidance in South Africa.

In chapter 3, career choice and development theories are discussed with the aim of identifying the essential elements that should be included in the design of a career guidance program, and in so doing provide the basis of the design of the program which will be discussed in chapter 4.

CHAPTER 3

THE IMPLICATIONS OF CAREER CHOICE AND DEVELOPMENT THEORIES FOR THE DESIGN OF CAREER GUIDANCE PROGRAMS

3.1 Introduction

3.2 Origin of career choice and development theories

3.3 Trait and factor theory

3.4 A developmental approach

3.5 Holland's theory of careers

3.6 Super's self concept theory

3.7 A social learning approach

3.8 Career decision-making

3.9 Generalised implications of career choice and development theories for the design of career guidance programs.

3.10 Chapter Summary

CHAPTER 3

THE IMPLICATIONS OF CAREER CHOICE AND DEVELOPMENT THEORIES FOR THE DESIGN OF CAREER GUIDANCE PROGRAMS

3.1 INTRODUCTION

Chapter 3 provides a perspective on the field of career guidance. It presents various theories on career choice and development, providing insight into the developmental process inherent to career decision-making. A better understanding of these processes will help identify the essential elements that should be considered in the design of a career guidance program. There are two schools of thought surrounding career guidance and development. The psychological approach suggests that the matching of a person to a career is the essence of career guidance, while the social approach suggests that past experiences and learning form the basis of career decision-making.

3.2 ORIGIN OF CAREER CHOICE AND DEVELOPMENT THEORIES

The origins of career guidance theory and practice can be traced back to 1908 when the Boston Vocational Bureau was founded by Frank Parsons. Parsons' schema provided the first conceptual framework for career decision-making and thus the first guide for career guidance programs. He suggested that if a person chose a vocation, rather than merely hunted for a job, the worker's success and satisfaction would increase and the employer's costs and inefficiencies would decrease (Brown & Brooks, 1990).

Parsons maintained that vocational guidance is accomplished first by studying the individual, secondly by surveying occupations, and finally by matching the individual to the occupation (Zunker, 1990). Parsons' approach led to two developments: vocational guidance and vocational education programs. Because the needs of the marketplace were a predominant concern at the time, the emphasis shifted from vocational guidance and education, to the study of occupations. This model of providing occupational information as the primary base for vocational choice, dominated vocational guidance thinking until the 1940's.

From 1930 to 1950, various complex economic and social factors led to a shift in emphasis in the focal point of vocational choice from occupational information to the identification of individual traits. This shift primarily resulted from World War II and the need to select personnel for the armed forces. A relatively new technique known as factor analysis, which followed a psychometrically sophisticated approach to the identification of individual aptitudes and traits, was used for selection (Brown & Brooks, 1990).

This dual emphasis on the study of occupations (which resulted in the 1939 publication of the Dictionary of Occupational Titles) and the study of the individual (which produced various psychometric assessment instruments) converged in the trait and factor theory, as will be seen in chapter 3.3 (Brown & Brooks, 1990).

Career guidance practices have been influenced by many theories. Modern theories draw on a combination of Freud's psychoanalytical theory, the neo-analytical thinking of Erikson, Maslow's needs theory, phenomenology, the behaviour theories of Skinner and the sociological theories of Musgrave (Brown & Brooks, 1990).

While psychology has had a predominant influence on theories of career choice and development, sociologists such as Holingshead, Reissman, Swell, Haller, and Strauss, have studied sociological variables relating to career choice. A lack of reconciliation between psychological and sociological approaches has caused career guidance theorists to differ on the major influences in vocational choice. Psychologists emphasised the importance of the individual in the career guidance process, whilst sociologists emphasised the relevance of social variables in the career guidance process. Despite this, theories and practices of career guidance have grown significantly (Brown & Brooks, 1990).

The thinking of early theorists has certain implications on the design of a career guidance program. Parsons' theory implies that a career guidance program should contain three essential elements: The program should encourage introspection and self awareness in the learner; there must be career education in the process to increase the learner's career knowledge; and there must be integration between self knowledge and career information.

3.3 TRAIT AND FACTOR THEORY

The trait and factor theory approach has lasted the longest of all the theories of career guidance. Simply stated, it means matching an individual's traits with requirements of a specific occupation, subsequently solving the career search problem (Zunker, 1990).

Traits are regarded as lasting individual characteristics, which help to differentiate one individual from another, whilst factors refer to the characteristics of the work environment. According to Watson and Stead (1999) career choice requires the successful match between the traits of the individual and the requirements of the work environment.

The key characteristic of the trait and factor theory is the assumption that individuals have unique abilities that can be objectively measured and correlated with the requirements of certain types of jobs (Zunker, 1990).

Research by Brown (1987) suggests that traits are learned entities that are descriptive by nature. Because traits are learned they are subject to change as new learning occurs. This has raised questions about the stability and endurance of traits, and the controversy is far from resolved. Nevertheless, the traits of greatest relevance to career guidance programs and vocational psychologists, namely attitudes, interests, abilities, and personality, seem to be relatively stable (Isaacson, 1986).

Reviewers of the trait and factor theory (Brown & Brooks, 1990), agree that:

- (1) Each individual has a unique set of traits that can be measured reliably and validly.
- (2) Occupations require that people possess very specific traits for success, although a person with a wide range of characteristics can still be successful in a particular job.
- (3) The choice of an occupation is a rather straightforward process, and matching is possible.

- (4) The closer the match between personal characteristics and job requirements, the greater the likelihood of success in the form of productivity and job satisfaction.

Researchers such as Super and Holland base their theories on the notion that every person has a unique set of traits and that workers must possess certain identifiable characteristics to be successful in particular jobs. Most career guidance theorists seem to believe that the matching of worker to occupation is both possible and desirable (Brown & Brooks, 1990).

The trait and factor theory has implications for the design of a career guidance program. It suggests that each individual is unique in that each displays a unique set of traits that should be matched to occupations. This in turn implies that the most scientific methods available should be used to identify individual traits. Personality, ability, interests, values etc. are all traits that can be measured, and the measurement of them should thus be part of a career guidance program.

While significant research has been conducted on the matching of individual personality traits with occupations, less research has concentrated on the matching of personality traits with the different types of industries. During program development in chapter 4 emphasis will be placed on the difference between a career and an industry.

3.4 A DEVELOPMENTAL APPROACH

Ginzberg was the first to approach a theory of occupational choice from a developmental standpoint (Zunker, 1990).

According to Zunker (1990), Ginzberg, Ginzburg, Axelrad, and Herma in 1951, were the first to approach the theory of occupational choice from a developmental perspective, thus breaking away from the trait and factor theory of occupational choice. They suggested that occupational choice was a developmental process which generally covers a period of six to ten years, beginning about age 11 and ending shortly after age 17 or into young adulthood (Zunker, 1990). These years are characterised by compromise, because people must balance interests, aptitudes and opportunities. In their original formulations they postulated that occupational choice occurred over a number of years but was completed in early adulthood. This viewpoint is supported by

Watson and Stead (1999) who suggest that career life stages follow a linear and predictable progression, each approximating certain age patterns.

In 1972, Ginzberg revised the theory, suggesting that occupational choice is a lifelong process of decision-making for those who seek satisfaction from their work. This, says Ginzberg, leads them to reassess repeatedly how they can improve the fit between their changing career goals, and the realities of the world of work (Zunker, 1990). The statement by Ginzberg and his colleagues, that career choice is a 'developmental process', is a landmark contribution in the field of career guidance, and it still commands centre stage in the theory of the subject.

Ginzberg's theory of career development has relevant implications for the design of a career guidance program. Ginzberg's initial theory suggested that occupational choice was developed over a period of six to ten years, between the ages of eleven and seventeen. This would, therefore, suggest that it is during the high school years that efforts need to be made to foster this development (maturity) process. Ginzberg suggests that the social influences experienced during those six to ten years are a contributing factor to career selection. The design of a career guidance program should consider these social influences, and attempt to include them in the overall program, possibly as part of increasing self-awareness.

3.5 HOLLAND'S THEORY OF CAREERS

John L. Holland's theory is based on the trait and factor theory. Holland agreed with the trait and factor theory regarding the importance of matching job requirements and personality traits, but felt that it failed to stress the importance of matching the job environment with personality traits (Gevers, du Toit & Harrilall, 1992).

Holland's work on personality focuses on the study of types (typology). He contends that each individual resembles, to some extent, one of six basic personality types. He goes on to suggest that, just as there are six basic types of personalities, there are also six basic types of environments which, like personalities, can be described according to certain attributes and characteristics. For example, the personality types of those who work in schools (teachers), differ from those who work in offices (clerks). He therefore, suggests that environmental types are assessed by a survey of the occupants of that environment (Brown & Brooks, 1990).

Holland's theory is based on four basic assumptions:

(1) "In our culture, most people can be categorised as one of six types: realistic, investigative, artistic, social, enterprising, or conventional. The way in which an individual relates to the environment indicates his or her type." (Holland, 1985: 2.)

(2) " There are six kinds of environments: realistic, investigative, artistic, social, enterprising, or conventional. In general, each environment is populated by individuals from corresponding personality types. For example, more artistic individuals than conventional individuals are found in artistic environments. People create environments where certain personality types dominate, and the environments thus created can be identified in the same manner as the individuals who dominate them." (Holland, 1985: 3.)

(3) " People search for environments that will allow them to exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles. This assumption is well expressed in the saying 'Birds of a feather flock together'. " (Holland, 1985: 4.)

(4) "Behavior is determined by an interaction between personality and the environment. Knowledge of a person's personality and of his or her work environment can allow one to reasonably predict outcomes such as job success, job choice, job changes and so forth." (Holland, 1985: 4.)

Holland suggested that although one of six types may dominate an individual's personality, that individual could show personality characteristics from each of the six types. He developed the term sub-types which categorises the person's predominant characteristics in the form of a three letter code. For example, the sub-type SAE describes a person with the traits social, artistic, and enterprising, in that order. The Holland profiles are called three-letter codes and have become a kind of shorthand for characterising people as well as occupations.

Members of each typological group tend to approach certain kinds of activities and avoid others. A brief description of the six types follows (Isaacson, 1986):

(1) *Realistic* individuals deal with the environment in an objective, concrete, and physically manipulative manner. They prefer activities that involve motor skills, objects and structure.

(2) *Investigative* people deal with the environment by the use of intelligence, manipulating ideas, words and symbols. They prefer scientific vocations, theoretical tasks, reading, collecting, algebra, and creative activities.

(3) *Artistic* individuals deal with the environment by creating art forms and products. They prefer artistic, musical, literary, and dramatic vocations, which are creative by nature.

(4) *Social* individuals deal with the environment by using skills in handling and dealing with others. They prefer educational, therapeutic, and religious vocations. They are sociable by nature.

(5) *Enterprising* individuals deal with the environment by choices expressing adventurous, dominant, enthusiastic, and impulsive qualities. They prefer sales, supervisory, and leadership vocations.

(6) *Conventional* types deal with the environment by choosing goals and activities that carry social approval. They approach problems in a stereotypical manner and prefer tasks that are clerical and computational by nature.

Holland has developed four psychometric instruments, the most popular being the Self-Directed Search questionnaire, which measures the individual's interests and allows for the categorising of the individual according to his/her sub-type or three lettered code. This questionnaire has since been standardised for South African conditions by the Human Sciences Research Council, and is known as the South African Vocational Interest Inventory (SAVII), (duToit, Gevers & Harrilall, 1993).

In summary, Holland suggests that the choice of an occupation is an expression of the individual's personality and not a random event, although chance may play a role. He goes on to say that members of an occupational group have similar personalities as well as similar histories of personal development. Because people in an occupational group have similar personalities they will respond to many situations and problems in similar

ways. Finally, occupational achievement, stability, and satisfaction depend on congruence between one's personality and the job environment (Holland, 1985).

Holland's theory has simplified the career guidance and selection process considerably. He felt that the matching of specific individual traits to specific careers was an extremely daunting task, and he thus combined traits into certain categories. This has allowed career development and guidance programs to evaluate individuals against six basic categories rather than the many divergent traits that exist. Holland further suggests that career selection is influenced by social factors that have had an influence on the individual's development. This implies that career guidance practitioners should also consider the social history and environment in which their clients have grown up.

Holland's theory has several implications for the design of a career guidance program. It reinforces the importance of matching personality to occupations. His theory furthermore reflects the importance of self-awareness, what he calls self information, which implies that a sound career guidance program should encourage introspection within the learner. He also emphasises the importance of knowledge about different careers, what he calls career information. This implies that a sound career guidance program should include a career education element. Holland's theory further suggests the importance of career planning. This too has important implications for a career guidance program, as it suggests that a program should also focus on helping individuals to plan after career selection has taken place. This reinforces the developmental emphasis of Ginzberg's theory.

3.6 SUPER'S SELF CONCEPT THEORY

Super's theory is not so much a new theory as an assemblage of theories that have been synthesised. Super does not believe that career choice is a result of only a psychological perspective or social perspective, but rather a combination of and interaction between the two. He emphasises that both internal (personality) as well as external (social) factors have an influence on the individual's career development. Super further suggests that an individual's personality is a composition of his needs, intelligence, values, aptitudes, and interests. The manner in which these personal resources are used, misused, or abused will determine the individual's achievements throughout his life (Brown & Brooks, 1990).

Socio-economic factors also play an important role in the career choice of individuals. These include the community and society in which the individual lives, the economic circumstances, the influences of school and family, his/her peer group as well as the state of the labour market. The interaction between these factors develops into a social policy, which in turn determines the employment practices within that society. Socio-economic factors have a great influence on the individual's personality development. As individuals interact with friends, family and peers, they develop new interests, values and aptitudes. The way in which these aptitudes, values and interests develop will in turn influence the manner in which the individual interprets, copes and behaves within that society (Brown & Brooks, 1990).

Super's Life-Span, Life-Space theory suggests that career development is a lifelong process that stretches from birth to death (Lacey-Smith, 1992). This approach emphasises the impact that developmental stages have on an individual's career choice. Super states that as the individual grows he goes through various life stages. These stages are those of child, student, leisurite, citizen, worker, and homemaker.

During each of these stages the individual is confronted with certain developmental tasks which cause him or her to develop concepts of himself or herself in each of these life roles. These role concepts form through interaction between the individual and his or her environment. The social learning theory as proposed by Thorndike, Hull and Bandura, suggests that these role concepts form through interaction between the individual and his environment. Social learning theorists believe that learning occurs as a result of satisfactory or unsatisfactory dealings with people, ideas, activities and objects. The manner in which a person interprets and reacts to his environment brings about certain results or consequences, resulting in learning. The many role concepts (which result from learning) combine and integrate to form the individual's self concept, which according to Super is one of the primary determiners of the individual's occupational choice (Brown & Brooks, 1990).

Super theorises that career choice is a result of two processes: developing a picture of the kind of person one is; and trying to make that picture or concept a reality (Super, 1988). As a person progresses through life he/she experiences certain successes and failures. These successes and failures tend to develop in him/her a picture of himself or herself as for example, one who writes well or one who is always on time. All these little specific concepts of oneself add up to a picture of the whole self. This picture of

the self (self concept) guides the individual in his/her vocational decision-making as he or she will strive to partake in a career that will match his/her successes. For example, an individual who is successful in mathematics but a failure in physical education, is unlikely to follow a career as a sports-person.

Wrenn (1988) also believes that an individual's self concept is core to career development, and that career development practitioners should place emphasis on the person's self concept during the presentation of career development programs. He recommends concentrating on enhancing an individual's self concept, as most people are subjected to negative rather than positive reinforcement, and consequently find it difficult to identify their strengths. When aided in identifying his/her strong points, the individual is enabled to evaluate careers that will create inner synergy.

Super's self concept theory has implications for career guidance programs. It implies that a career guidance program should include a method to assess an individual's self concept. The program should be motivational by nature, and focus on an individual's strong points, rather than belabour the weak points. A good indicator of an individual's self concept is his/her career maturity level. This is especially so amongst individuals who have low career maturity levels. Individuals with low a self concept often tend to select careers that are well below their potential. The enhancing of an individual's self-concept can have a positive effect on the career selection process, and should therefore, be incorporated into a career guidance program.

3.7 A SOCIAL LEARNING APPROACH

The Social Learning Theory of career decision-making originates from Bandura's social learning theory and its effects on human behaviour. The theory was designed to address the question of why people enter into particular education programs, or occupations, and why they may change occupations at selected points in their life (Brown & Brooks, 1990).

Social learning theories suggest that preferences for certain activities are learned (Watts *et al.* 1996). According to Mitchell and Krumboltz (Landsberg, 1996), social learning theory posits three major types of learning experiences. The first is *instrumental learning*, which occurs when an individual receives either negative or positive reinforcement for a certain experience or behaviour. The second type of learning

experience is known as *associative learning*, which occurs when an individual associates a previously non-affective or neutral event with an emotionally laden occurrence or stimulus. Instrumental and associative learning occurs through direct experience. A third way in which people learn has to do with *vicarious experience*. Vicarious learning occurs through observation. Individuals learn new behaviours through observing the behaviour of others. Whether or not they then choose to act out that behaviour will depend upon their interpretation of the reinforcement contingencies associated with that behaviour (Landsberg, 1996). According to Watts *et al.* (1996) people construct a schema, or a belief about themselves and the world, which organises their learning, and subsequently guides their decisions.

According to Brown and Brooks (1990), Krumboltz' research (1967) amongst students showed that those who had been exposed to certain careers were able to give informed reasons for their career choices. Brown and Brooks also refer to similar research conducted by Baird (1971), which emphasised the reason why students selected specific courses of study. Baird found that students who did well academically at school had a greater desire for some form of tertiary study. The fields that they selected were often guided by the subjects at which they performed well at school.

Results from a discussion with several student counselling units at various Universities in South Africa during 1999 suggest that students drop out of studies because they are unaware of what the courses they have chosen entail. This implies that many students choose a career without carrying out sufficient research into the subjects required to pass the relevant course.

The social learning theory has certain implications on the design of a career guidance program. Career maturity as defined in chapter 2 refers to the 'ability to make informed career decisions'. The social learning theory proposes that exposure to various experiences contribute to learning, which in turn will increase the likelihood of a learner making an informed career decision.

The opportunity to gain exposure to all available careers before making a choice is very unlikely. A trait-factor theory will thus play an important role in helping individuals to narrow down the careers that they need to begin exploring.

Super's self concept theory, when applied to learners from environments lacking career role models, supports Krumboltz' theory of gaining direct experience in a career before selection. Krumboltz suggests that passive or vicarious learning such as reading up on a career or viewing it on television fails to have the same reinforcement as direct exposure to the career (Brown & Brooks, 1990).

Social learning theories have certain implications on the design of a career guidance program. It suggests that a career guidance program should encourage learners to gain exposure to those careers that were identified through the psychometric tests (trait and factor) by the counsellor as possible career routes. In addition the learners should be encouraged to gather course materials on the subjects that they are going to study, and even attend a few lectures, in that specific field of study.

3.8 CAREER DECISION-MAKING

In past years, career theorists have presented theories on how individuals end up in particular occupations, jobs or careers, but have often neglected the importance of the life processes that influence career selection. Decision-making should be considered as one of the most fundamental life processes. As the individual progresses through life he/she is continually confronted with situations requiring decisions. The transition from scholar role to work role is one time when the individual is required to make decisions that will have a telling influence on the rest of his or her life. For this reason, the process of career decision-making is now discussed.

Current career decision-making models are either descriptive or prescriptive by nature. Descriptive models explain the normal decision-making process and how decisions are made, while prescriptive models attempt to help individuals in the actual making of the decision and provide a method which guides them through the decision-making process. While descriptive models explain 'how decisions are made', prescriptive models explain 'how to make decisions' (Brown & Brooks, 1990: 419).

Although several models of career decision-making exist only two have been selected for discussion, as they both have practical application possibilities.

The first of these is Vroom's Expectancy Model, which is a descriptive model. There are two terms central to Vroom's model: valence and expectancy. *Valence* is defined as

an "affective orientation toward particular outcomes" (Vroom, 1964: 15), and is used synonymously with emotion. *Expectancy* can be defined as the "degree to which someone anticipates an outcome" (Vroom, 1964: 15), and is used synonymously with expected outcome. An outcome may have a positive, negative or neutral emotion associated with it. An individual will move towards an outcome if the positive valences outweigh the negative valences.

It is important to note that Vroom (1964) suggests that the valence of an outcome is not based on the actual satisfaction provided (its value), but rather, on the satisfaction that the individual anticipates deriving from the outcome. Regarding occupational choice, Vroom says that it is not the actual occupation and its associated work that attracts the individual, but rather what the occupation has to offer, for example, status, money, security, and so on. Therefore, a decision-maker makes decisions based not on the outcome itself but rather on what that outcome has to offer (Vroom, 1964).

The next decision-making model to be discussed is the 'prescriptive' model designed by Restle. Restle's Reconceptualised Choice Model (RCM), argues that the decision-maker compares the implications of a decision with an ideal situation in his or her mind. Restle suggests that people develop a certain picture in their mind. This picture usually reflects an ideal situation. He recommends that a person check the possible results of a decision against this ideal situation before a decision is made. This view is largely supported by Krumboltz' social learning theory (Brown & Brooks). Gottfredson (Watts *et al.*; 1996), supports this prescriptive decision-making model. He suggests that individuals consciously limit their career decision options by eliminating those options that do not fall within the ideal situation. This, he explains, is one of the reasons why career stereotypes exist, and suggests that aspects such as career stereotypes contribute to simplifying the career decision-making process (Watts *et al.*; 1996).

Career decision-making models have certain implications for the design of a career guidance program. Restle's decision-making model, in particular, has important implications as it suggests that career guidance programs should contain an educational element to ensure that the image or schemata the individual has of a career is in fact synergistic with the reality of the career.

3.9 GENERALISED IMPLICATIONS OF CAREER CHOICE AND DEVELOPMENT THEORIES FOR THE DESIGN OF CAREER GUIDANCE PROGRAMS

As indicated at the end of the discussion on each of the different career choice and development theories, each theory has several implications for the design of career guidance programs.

Career choice and development theories are primarily split into two schools. *Psychological* theories, which emphasise the matching of individual traits to a career, and the *social* theories, which emphasise past experiences as core elements in to the career selection process. A career guidance program should ideally combine the two schools of thought, as both have valid implications on career selection.

Career guidance programs should begin well before the actual assessment (trait and factor theory), and continue well after the counselling session. They should encourage introspection, as suggested by both trait and factor, and Holland's theories.

Furthermore, the career education process (which forms a part of a career guidance program) should also begin well before and continue even after psychometric testing occurs. Individuals should be encouraged to consider both social characteristics, and personal characteristics as suggested by Ginzberg. Doing this will assist in the final decision-making process.

Apart from introspection and career education, the scientific identification of personality traits, interests, abilities, values and physical behaviour should also take place, so that matching can be made.

Career guidance programs should also serve as a reality check to encourage synergy between the individual's perception of the career and the realities of the career. A career guidance program should not allow an individual to leave the program, with merely a list of suitable occupations. On the contrary, a career guidance program should encourage career research and experience, future planning and investigation.

3.10 CHAPTER SUMMARY

Career choice and development theories go back as far as the early 1900's. They emphasised the scientific matching of person to job. Latter theorists built upon the initial thinking of matching person to job and developed the trait and factor theory, which emphasised the identifying of personality traits and fitting them to occupational requirements. This theory however failed to consider the influence that the environment has on the individual.

Holland formulated a theory that attempted to match job environment with personality. He categorised personalities and job environments into six corresponding categories. His underlying assumption is that behaviour is determined by an interaction between the person and the environment.

Super suggested that although matching of personality to job and job environment is important, the role that self concept plays is central. He proposed that self concept is formed by interaction with, and interpretation of, the environment. This implies that an individual's history should not be overlooked during the career guidance process.

In line with Holland and Super, Krumboltz believes that exposure to career environments is essential. He suggests that interest inventories are responded to from an immature base, and that learners need to gain exposure to specific careers before finally deciding on a career.

Other theorists feel that these earlier theories concentrate too much on how individuals land up in certain careers but tend to ignore certain essential life processes; one of these being the decision-making process. They suggest that insufficient emphasis has been placed on the decision-making process and that career guidance efforts should also concentrate on helping individuals to make decisions. All the theories combined provide valid information for designing a career guidance program, and provide a holistic approach to the counselling situation.

Hereby the second research question has been answered and the second specific objective reached, namely to identify from the revision of the literature, the elements that constitute a sound career guidance program. In the next chapter the career choice and development theories discussed above are assimilated into the design of a career guidance program.

CHAPTER 4

ASPECTS TO CONSIDER WHEN DESIGNING A CAREER GUIDANCE PROGRAM

- 4.1 Introduction
- 4.2 Career selection stages
- 4.3 A summary of the implications that career choice and development theories have on the design of a career guidance program
- 4.4 Elements to be included in a career guidance program
- 4.5 Chapter summary

CHAPTER 4

ASPECTS TO CONSIDER WHEN DESIGNING A CAREER GUIDANCE PROGRAM

4.1 INTRODUCTION

The career choice and development theories discussed in chapter three suggest that there are several elements that should be included in a career guidance program. The program should attempt to include elements of all the theories, as each plays a significant role in career choice.

This chapter will look at the main features of each of the theories and makes suggestions regarding the elements that should be included in a career guidance program. Specific emphasis will be placed on the design of the program.

The stages that a person moves through before reaching a final career decision will, however, be discussed first

4.2 CAREER SELECTION STAGES

According to Isaacson, individuals go through a five-phase process before entering into a career. These are shown in figure 2 below (Isaacson, 1986 : 21). The first four phases are relevant to career selection, whilst the fifth phase relates to becoming employed after a career choice has been made. Career guidance programs in South Africa end when a person makes a career decision, and they do not generally move into the areas of preparation and employment.

Career guidance programs need to adopt a more developmental approach and should attempt to include aspects of the preparation and employment phases, described in Isaacson's model as is shown in figure 2.

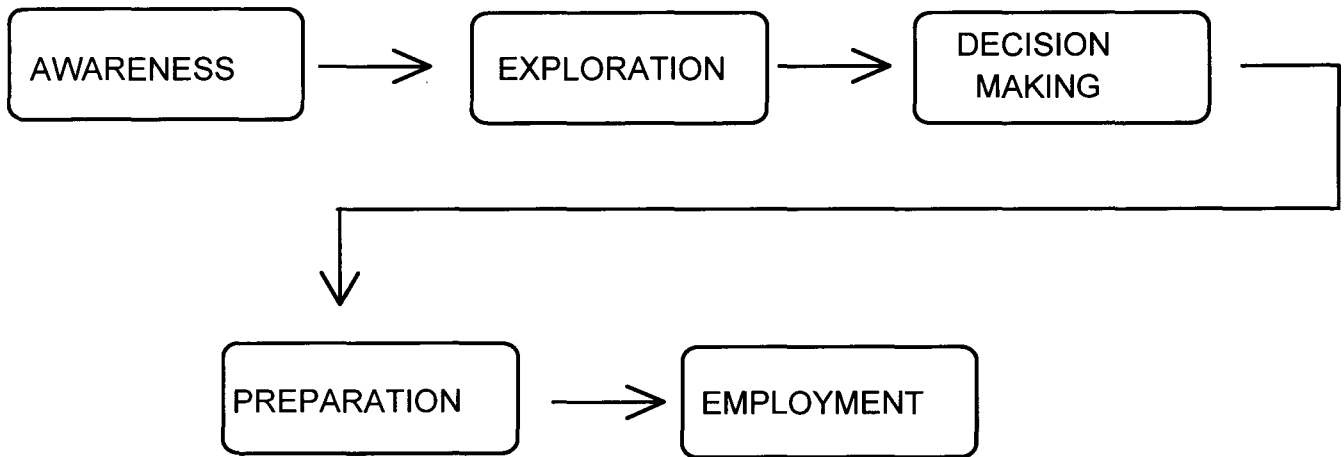


FIGURE 2 - The career selection process (Isaacson, 1986 : 21.)

What follows is a discussion of the various phases of a career selection process as suggested by Isaacson (1986). Isaacson (1986) suggests that an individual needs to progress through five separate phases during career selection:

- Awareness: - This phase starts when the individual begins to realise that there are many different careers available. The individual begins to evaluate him/herself in relation to these careers.
- Exploration: - In this phase the individual gains a greater understanding and knowledge about careers and people. This phase continues throughout a person's life.
- Decision-making: - The person applies the acquired knowledge about careers and self and begins to formulate a vision for the future.
- Preparation: - During this phase the individual begins to act upon the vision. He/she begins to investigate the careers in more depth, the routes of entry into such careers, the opportunities available, etc. At this point he/she elects to seek employment, or to continue to higher education.
- Employment: - This is the actual entrance into the world of work (Isaacson, 1986).

Most career guidance programs in South Africa focus on the awareness stage but fall short on the exploration, decision-making, and preparation phases.

The researcher has attempted to develop a career guidance program, which would include all the five stages as proposed by Isaacson, namely the *awareness*, *exploration*, *decision-making*, *preparation* and *employment* stages. The question that arises, however, is whether such a career guidance program will indeed enhance the career maturity of grade 11 and 12 learners.

4.3 A SUMMARY OF THE IMPLICATIONS THAT CAREER CHOICE AND DEVELOPMENT THEORIES HAVE ON THE DESIGN OF A CAREER GUIDANCE PROGRAM

The trait and factor theory suggests that each individual is unique and each individual's unique traits should thus be identified. A career guidance program should therefore include certain interventions that will assist in identifying the individual's unique traits. The most widely recognised method of doing this is with the use of psychometric tests. The psychometric tests that should be used should allow for the determining of the individual's personality, abilities and aptitudes, interests, and values.

A main feature of Holland's theory is the grouping of occupations into occupational categories (Gevers *et al.*, 1992). The large number of careers that are available to choose from can be daunting and confusing to individuals. Holland suggested that a career guidance program should assist in streamlining the many careers into career categories. This simplifies the process of career choice as there are far fewer career categories from which to choose as there are careers. Once having matched oneself to a career category the individual can then begin to match his or herself to a specific career within that category. This highlights the importance of including a career education element into a career guidance program.

Self concept theorists suggest that individuals will choose careers that are in consonance with their perceptions of themselves, their personality and their abilities. The theory suggests that individuals with a poor self concept will choose careers that are well below their abilities. This could well lead to a lack of stimulation and dissatisfaction later in the individual's career. A career guidance program should in

particular, be able to identify those individuals who have a low self concept, and assist them to reach their true potential.

Ginzberg suggested that individuals will throughout their work life continually seek to build on their existing skills with the aim of changing their career as their needs and circumstances change. This theory is extremely relevant in this day and age, as people tend to be more adventurous in terms of making career changes. The theory suggests that when individuals choose a career they should do so based upon their current needs and situation, whilst at the same time look at possible second, third, and fourth careers that may stem from the initial career. A career guidance program should assist individuals to see beyond their initial career choice, and in fact assist the individual to plan a possible second, third, and even fourth career path.

A main feature of the social learning theory is the suggestion that individuals should gain some form of exposure before choosing a career. A career guidance program should include a 'reality check' which allows individuals to spend time in a career before a final decision is made.

4.4 ELEMENTS TO BE INCLUDED IN A CAREER GUIDANCE PROGRAM

Career guidance programs in their current form (figure 1), should be more comprehensive. They should offer a more holistic approach, as is depicted in the flow diagram of Isaacson in figure 2. According to Isaacson's model, there are several additional elements that could be included in current career guidance programs to improve the qualitative outcome of the career choice process. These additional elements are discussed below.

4.4.1 Awareness phase

It was mentioned in the previous section that psychometric assessments are essential to the career guidance process as they assist individuals in increasing their self awareness. This represents the first phase of the career selection process as suggested by Isaacson (1986).

Most existing career guidance programs begin with psychometric assessments as their departure point (see figure 1). The researcher however suggests that there are additional

interventions that can also contribute to enhancing the individual's self-awareness. These additional interventions would also fall within the awareness phase of Isaacson's career selection model, but should occur before psychometric assessments are conducted.

These additional interventions during the awareness phase should encourage the individuals to undergo self-analysis in relation to career options prior to undergoing psychometric assessments. Biographical questionnaires and writing of a résumé can serve this purpose well as they force individuals to think and write about themselves. The awareness phase of a career guidance program should therefore include a self-analysis intervention before psychometric assessment.

4.4.2 Exploration phase

To satisfy Isaacson's model (figure 2), a career guidance program should encourage career exploration. Such career exploration can be facilitated by including a career education intervention as part of the career guidance program.

Career education involves research into various careers. Such research could include activities such as reading about various careers, visiting and speaking to people who are working in particular careers, working during holiday periods to gain exposure, watching videos on careers, and visiting trade exhibitions.

Career education interventions should also include research into the requirements for entry into careers. A major cause for the high dropout rate at tertiary institutions is a lack of understanding by the learner, regarding course content. A career guidance program should allow for individuals to investigate the content of the course work that they will study in preparation for their career, and should encourage individuals to attend lectures before registering for a specific study route.

The social learning theory (chapter 3) suggests that the type of exposure discussed above will contribute to allowing an individual to make an informed career decision.

4.4.3 Decision-making phase

Restle's Reconceptualised Choice Model (chapter 3) suggests that the decision-maker compares the implications of a decision with an ideal situation in his or her mind. The previous two phases of the career selection process allows an individual to gain a more realistic impression of the 'ideal' situation. Should the positive valences still outweigh the negative valences (Vroom, 1964), once a more realistic impression of a particular career is gained, it is likely to facilitate the career decision-making process.

If individuals are able to research several career options, they will then be in a position to establish which of the career options provide the greatest degree of cognitive-consonance (Darley *et al.*, 1984), and thus contribute further to making a career decision.

4.4.4 Preparation Phase

This phase of the career selection process involves the mapping out of a detailed action plan for entry into the career that was decided upon during the decision-making phase (phase 3). It includes investigation into the various paths of entry into the career, financing of studies, school marks to be achieved for entry into the study course and so on.

This phase should include some degree of scenario planning, which will allow the individual to answer certain 'What If' questions. In addition to this the individual should be encouraged to identify second, third and even fourth potential career paths.

Career development programs should include the drawing up of detailed action plans and encourage scenario mapping. During the counselling session (figure 2) the career guidance counsellor should assist the individual in drawing up such action plans.

4.4.5 Employment phase

This phase refers to the actual entry into the world of work. Whilst this phase is an important phase of the career selection process as suggested by Isaacson (1986), the researcher suggests that the individual has at this phase already selected a career. Elements pertaining to this phase of Isaacson's model can nevertheless be built into a

career guidance program during the ‘exploration phase’ (4.4.2), when learners are encouraged to do holiday work in the careers that they are investigating.

The above career selection phases, particularly the first four phases make suggestions as to the elements that should be included in a career guidance program. These elements are represented visually in figure 3.

Figure 3 suggests that a career guidance program should consist of four basic components, namely; *awareness* (a history and social background check, a psychometric assessment, and a physical behaviour analysis), *exploration* (via written or visual career information, visits to organisations and individuals in the specific careers, attending of lectures), *decision-making* (making a career decision as a result of career exploration), *preparation* (during which a detailed action plan is formulated), and *employment* (elements of which occur during the exploration phase). The career guidance process in figure 3 encompasses all the stages of Isaacson’s career selection process (figure 2), and incorporates elements of many of the career choice and development theories.

The “PACE” career guidance program which serves as the Independent Variable (IV) for purposes of this research, was designed according to the outline in figure 4.2, and will be discussed in more detail in chapter 5.





CAREER SELECTION PHASE	ELEMENTS THAT CAN BE INCLUDED IN A CAREER GUIDANCE PROGRAM
<p>AWARENESS PHASE</p>	<p>During this phase the counsellor should attempt to learn more about the individual's background. The counsellor should attempt to gain a better understanding of the individual's social circumstances. Psychometric questionnaires and tests can be used to determine the interests, aptitudes and personality characteristics of individuals. While psychometric evaluations provide valuable information on intrinsic functioning, they fail to provide an indication of how the individual functions in real life situations. Evaluating the individual's physical behaviour via group exercises can also provide valuable information to the counsellor. During this phase the counsellor should narrow down the career options for the individual, so as to provide focus to the 'exploration' phase.</p>
	
<p>EXPLORATION PHASE</p>	<p>This phase of the program should encourage the individual to explore the careers that have been identified by the counsellor. The counsellor should encourage the individual to research the various career options that were identified in the previous phase. This research should include sourcing of information on what the careers entails, employment opportunities, entry qualifications, time frames, financial implications, areas of specialisation, alternate places of study, financial assistance, and more. Activities such as visiting people in the identified careers and attending trade exhibitions can also be a useful exercise to enhance the individual's career knowledge.</p>
	
<p>DECISION-MAKING PHASE</p>	<p>This phase of the career selection process can be made easier for the individual if phases 1 and 2 above, have been correctly administered. The individual will find it easier to make a career decision as he or she gains more knowledge about the career. Once the individual has made a decision, he or she can now begin preparing his- or herself for entry into the selected career.</p>
	
<p>PREPARATION PHASE</p>	<p>On having reached a decision, the individual needs to now begin preparing for entry into that career. There are several activities that need to be done during this preparation phase. Activities such as seeking bursaries, attending extra lessons, drawing up résumés, and seeking part time employment in the field of work are some of the activities that can be undertaken. The counsellor should assist the individual in such preparation by drawing up of action plans, and doing some scenario mapping.</p>
	
<p>EMPLOYMENT PHASE</p>	<p>This is the final phase of Isaacson's career selection model. In this phase the individual actively seeks employment. The individual should by this stage have had some exposure to work-life in the career of his/her choice. This exposure should take place during the 'exploration phase' of a career guidance program.</p>

FIGURE 3: Elements of a career guidance program

4.5 CHAPTER SUMMARY

This chapter discussed the various phases that individuals move through when choosing a career. A summary of the various career choice and development theories and their implications on the design of a career guidance program was presented. Special emphasis was placed on how a career guidance program should look.

Hereby the third research question has been answered and the third specific objective reached, namely to design a career guidance program that includes all or most of the elements that constitute a sound program.

The next chapter will present the research that was conducted on learners who were exposed to the career guidance program. The chapter will provide a clear description of both the dependent and the independent variables, and will provide information on the procedure employed for the research. The aim of the research was to determine the effect, if any, that a career guidance program, more specifically the “PACE” career guidance program, had on the career maturity of grade 11 and 12 learners.

CHAPTER 5

EMPIRICAL INVESTIGATION

- 5.1 Introduction
- 5.2 Selection of subjects
- 5.3 Research design
- 5.4 Measuring instrument
- 5.5 Structure of the "PACE" career guidance program
- 5.6 Procedure
- 5.7 Statistical analysis of data
- 5.8 Hypotheses
- 5.9 Chapter summary

CHAPTER 5

EMPIRICAL INVESTIGATION

5.1 INTRODUCTION

The primary objective of this research is to determine whether a career guidance program, namely the “PACE” career guidance program, increases the career maturity levels of learners. Chapter 2 provided an overview of the career guidance and education scenario in South Africa. Chapter 3 discussed various career choice and development theories and their implications on the design of a career guidance program. Chapter 4 drew from the implications as highlighted in chapter 3 and discussed the elements that should be included in a career guidance program. Chapter 4 then continued to incorporate those elements into a career guidance program, upon which the "PACE" career guidance program is based. Chapter 5 will discuss the application of the "PACE" career guidance program on a test-group in terms of identifying whether or not the program had an effect on the career maturity of the group. Chapter 5 will also discuss the methodology used during the research, highlighting the selection of subjects and the procedure that was followed. It describes the instrumentation used, specifically the Career Development Questionnaire (CDQ), and the type of statistical analysis applied.

5.2 SELECTION OF SUBJECTS

The research was conducted in East London. The central area of East London has a total of five schools belonging to the Eastern Cape Department of Education (ECDE). Although there were several private schools in the area it was decided to use ECDE schools as the career guidance that is offered at these schools is standardised. This minimises the distorting effects that different career guidance syllabi can cause. Of the five ECDE schools, three were randomly selected to partake in the research. The headmasters and career guidance teachers of the three schools were approached. It was explained to them that a new career guidance program had been designed, but not yet evaluated. Approval to conduct the research at the schools was granted. Each school was asked to submit a list of the names of grade 11 and grade 12 learners who were interested in partaking in the research.

From the total of 38 grade 11 volunteers, 15 were randomly assigned to the experimental group (Group C) and 15 were randomly assigned to the control group (Group D). As there was a shortage of seven learners to make up the placebo group (Group F), the school asked for 7 additional volunteers to make up the required number of 15.

There were 53 grade 12 volunteers of which 45 were chosen to participate. Fifteen were randomly assigned to the experimental group (Group A), 15 were randomly assigned to the control group (Group B), and 15 were randomly assigned to the placebo group (Group E).

The group format is tabulated below:

TABLE 1: Research group format

GROUP	N	GRADE	TYPE
A	15	12	EXPERIMENTAL
B	15	12	CONTROL
C	15	11	EXPERIMENTAL
D	15	11	CONTROL
E	15	12	PLACEBO
F	15	11	PLACEBO

5.3 RESEARCH DESIGN

In order to determine whether or not the "PACE" career guidance program had any effect on the career maturity of learners it was important to measure the career maturity levels of all learners before exposure and after exposure to the program. For this reason the design used for the research was a Pre-test – Post-test Control / Experimental 4 x 4 group design.

The variables are classified as the following:

- * Independent variable (IV) - "PACE" career guidance program

- * Dependent variable (DV) - Level of career maturity

5.4 MEASURING INSTRUMENT

The instrument used for measuring the Dependent Variable (DV) was the Career Development Questionnaire (CDQ). The CDQ was developed by the Human Sciences Research Council in 1988 (Langley, du Toit & Herbst, 1992a).

5.4.1 Rationale of the Career Development Questionnaire

The CDQ was developed to determine the career maturity levels of individuals by establishing the readiness of learners to make decisions on their careers.

5.4.2 Purpose of the Career Development Questionnaire

The aim of the CDQ is to identify the career development tasks with which an individual is experiencing problems. Obtaining this information makes it possible to take corrective measures.

The term “career maturity” is described by Super *et al.* (1984) as the extent to which a person is able to master the career developmental tasks that are relevant to his particular stage of life. Determining the individual's state of career maturity is important in the process of career guidance, because information obtained can be used to identify which of the individual's career development tasks require further attention. Giving attention to these under-developed tasks will enhance the individual's readiness to deal with the career selection process (Langley *et al.*, 1992a).

Langley *et al.* (1992a) has identified five common dimensions that can be regarded as essential stages of development, leading to career maturity. These are summarised as follows:

- * Obtaining information by the person on him-/herself, and converting this information to self-knowledge
- * Acquiring decision-making skills and applying them in effective decision-making

- * Gathering career information and converting it into knowledge of the occupational world
- * Integration of self-knowledge and knowledge of the occupational world
- * Implementation of knowledge in career planning

5.4.3 Description of the Career Development Questionnaire

The questionnaire examines five dimensions of career development, namely:

- (1) Self information
- (2) Decision-making
- (3) Career Information
- (4) Integration of Self information and Career Information
- (5) Career Planning.

5.4.4 Administration of the Career Development Questionnaire

Depending on the educational level of the testees the CDQ takes between 20 and 30 minutes to complete. A suitable test room should be used which has adequate space for seating and writing. Each testee receives a questionnaire and an answer sheet. The questions are read from the questionnaire and answered on the answer sheet. The testee has a choice of answering either true or false to each question, depending on whether or not he or she agrees with the statement. Testees are allowed to ask questions while taking the questionnaire. There is no time limit and all questions need to be answered.

5.4.5 Scoring the Career Development Questionnaire

The CDQ answer sheet is scored manually. There are 100 questions in total. One mark is awarded for each 'true' response for questions 1 to 10 (self information), 21 to 28

(decision-making), 41 to 52 (career information), 61 to 70 (integration), and 81 to 91 (career planning). The true responses for each of the questions are totalled and noted in the appropriate column.

One mark is awarded for each 'false' response for questions 11 to 20 (self information), 29 to 40 (decision-making), 53 to 60 (career information), 71 to 80 (integration), and 92 to 100 (career planning). The false responses for each of the questions are totalled and noted in the appropriate column.

The scores for the 'true' responses and the 'false' responses are totalled for each of the scales. For example, the 'true' responses for questions 1 to 10 (self information) are totalled with the 'false' responses for questions 11 to 20 (self information) to provide a total score for the individual on the scale self information.

An overall career maturity score is determined by adding the scores of each of the five scales and then dividing the total by five.

5.4.6 Interpretation of the Career Development Questionnaire

The maximum score that can be attained for each of the five scales (self information, decision-making, career information, integration, and career planning) is 20. Table 2 provides the guidelines for interpreting the CDQ.

TABLE 2: Guidelines for interpreting the Career Development Questionnaire

Score	Self Information
15 – 20	The subject has adequate self-knowledge
11 – 14	The subject's self-knowledge can be improved
7 – 10	The subject's self-knowledge is inadequate
0 – 6	The subject has little self-knowledge

The same guidelines are used for the remaining scales, namely; decision-making, career information, integration of self information and career information.

5.4.7 Reliability and validity of the Career Development Questionnaire

There has been extensive research on the CDQ's reliability and validity as a measurement instrument. Langley *et al.* (1992a) took a national sample of 5350 high school learners and four samples of first-year university learners. 539 Zulu-speaking learners; 154 English-speaking and 234 Afrikaans-speaking were tested in 1985, and 1418 first-year learners in 1989. The results were used in developing the questionnaire.

Satisfactory reliability coefficients and validity indexes were found for all groups. The CDQ can be used for individuals as well as groups (Langley *et al.*, 1992a). The psychometric properties of the CDQ are acceptable for use on high school learners and tertiary learners in the Western, African as well as Eastern Cultures (Langley *et al.*, 1992a).

5.4.8 Motivation for using the Career Development Questionnaire

The CDQ is the only career maturity index that has specifically been designed, standardised, and researched for local use.

5.5 STRUCTURE OF THE "PACE" CAREER GUIDANCE PROGRAM

The "PACE" career guidance program has been designed to add value to the effectiveness of career guidance programs as they currently exist in South Africa. The "PACE" career guidance program addresses the major shortfalls in existing career guidance programs and incorporates additional elements and phases (chapter 4) to accelerate the career development process.

The fundamental aim of the "PACE" career guidance program is to increase the career maturity levels of learners and, in so doing, enhance the quality and meaningfulness of the career selection process. The "PACE" career guidance program is designed to quantifiably improve the five core dimensions that provide a measure of career maturity. These dimensions are:

1. Gaining self-knowledge

2. Enhancing decision-making skills
3. Obtaining career information
4. Integrating self-knowledge and career information
5. Planning a career (Langley *et al.*, 1992a).

The "PACE" career guidance program has been designed to cater for grade 11 and 12 learners who are beginning to look at the world of work and to think about career selection. As previously defined (chapter 1), career maturity refers to the extent to which a person is able to master those career developmental tasks that are applicable to his/ her particular stage in life. Career maturity is enhanced when the individual is able to master certain general and specific developmental tasks, so that he or she may, at certain critical points in his/her life, be mature enough to arrive at meaningful scholastic and career choices. The "PACE" career guidance program has been designed to intervene at the stage when learners are beginning to make career choices, enabling them to make a smooth transition from one career life stage to the next.

The "PACE" career guidance program places greater emphasises on the importance of career exploration in grade 11, more so than in grade 12. The rationale being that the learner then has the opportunity to actively prepare for entry into the chosen career. This strategy has a secondary benefit in that it allows the learner contingency time should he or she fail to meet the requirements of his/her first choice. In certain cases a third or even fourth alternative may even be considered.

The "PACE" career guidance program includes all the elements (chapter 4) that should be included in a career development program. An in-depth discussion of the procedure employed in conjunction with the "PACE" career guidance program follows.

5.6 PROCEDURE

The procedure employed for purposes of the research as well as implementing the "PACE" career guidance program is discussed below.

5.6.1 Method of data gathering

Each of the three schools, which took part in the research, was administered on an individual basis, following an identical procedure for each of them.

All learners who were part of the experimental (A and C) and control groups (B and D) completed the Career Development Questionnaire (CDQ) 10 days before the experimental groups (groups A and C) were to complete the “PACE” career guidance program. This was done to determine the career maturity levels of learners, particularly learners whom formed the experimental group, before exposure to the “PACE” career guidance program.

Four weeks after the completion of the “PACE” career guidance program the experimental and control groups were asked to complete the Career Development Questionnaire again to determine whether there had been any significant change in career maturity levels. At this point the two placebo groups (E and F) were also asked to complete the CDQ. This was to take into account any possible effect that the CDQ may have had on the control group, between the first and second completion of the questionnaire.

5.6.2 Administering the program

The "PACE" career guidance program ran over a two week period, comprising of six phases. These phases are shown in figure 4 on the following page, and are discussed thereafter. Figure 4 also gives an indication of how each phase of the “PACE” career guidance program relates to Isaacson’s model and the various career development theories.

PHASE	INTERVENTION	DESCRIPTION OF INTERVENTION	ISAACSON'S CAREER STAGE	CAREER DEVELOPMENT THEORY
Phase 1	Pre-work	On registering for the program each learner will receive a workbook which will be completed at home before attending the actual program. This workbook asks questions about and provides information on financial aid, work environments, salary structures, places of education, decision-making, etc..	Awareness	Self concept theories, and Holland's theory
Phase 2	Psychometric testing	Psychometric tests are used to determine the interests, values and personality of learners.	Awareness	Trait and factor, and Holland's theory.
Phase 3	Assessment centre	An assessment centre is a technique used for recruiting staff into an organisation. The "PACE" assessment centre has been specifically adapted for a scholastic level. It provides the counsellor with information on communication skills, group functioning, entrepreneurial tendencies and practical behaviour. Through integrating the information of the first three phases, the counsellor is able to draw up a short-list of careers that the learner should begin considering.	Awareness	Self concept, and trait and factor theories
Phase 4	First counselling session	The combined results of the previous three phases are now explained to the learner in detail. The learner is given the list of careers that have been identified by the counsellor during the first three phases. The counsellor together with the learner during this first counselling session, reduce the list of identified careers even further	Exploration	Social learning theories and Self concept theories
Phase 5	Career planning workshop	These selected careers are then prioritised and career paths are designed for each. This phase is aimed at removing stumbling blocks, establishing contingency plans, and developing a long term career plan.	Exploration & Decision-making	Decision-making theories
Phase 6	Final counselling session	During this phase loose ends are tied and action plans are drawn up. Aspects such as employment opportunities, entry qualifications, time scales, financial implications, areas of specialisation, possible employers, alternate places of study, financial assistance etc, are discussed. The learner leaves the program with a list of things to do in preparation for entry. These may include tasks such as going for extra lessons, drawing up of résumés, and so on.	Preparation	Ginzberg's revised theory

FIGURE 4: Phases of the "PACE" career guidance program

Phase 1 : Completing the pre-workbooks

At the first administering of the CDQ the "Pre-workbooks" were handed out to the experimental groups (groups A and C). These pre-workbooks were completed at home together with the parents, and were returned when the learners arrived on day one (phase two) of the "PACE" career guidance program.

The pre-workbook contained a range of questionnaires and reading material with the specific aim of:

- 1) starting off the career education and development process
- 2) stimulating career-related thought processes in the individual
- 3) enhancing and developing the learner's self-knowledge
- 4) gathering information for the counsellor to use during later phases of the program.

The pre-workbook required learners to begin giving thought to matters such as job environments, salary ranges, universities, technikons, technical colleges, teachers' training colleges and other higher education institutes, as well as the financial implications of further study, bursaries and other forms of financial aid. The pre-workbook also required learners to complete a decision-making exercise to determine their decision-making maturity and style.

The main aim of the pre-workbook is to begin the education and development process well before the individual attended the program.

Phase 2: Psychometric testing - day one

On day one the experimental groups completed a comprehensive range of psychometric tests, consisting of:

- The South African Vocational Interest Inventory (HSRC)
- The Structured Objective Rorschach Test (HSRC)
- Value Scales (HSRC)

Psychometric testing provided information about the individuals participating, and helped to enhance the individual's self-knowledge.

A description of each of the psychometric test follows:

I) The South African Vocational Interest Inventory (SAVII)

The SAVII, which is based on J.L. Holland's theory of occupational choice, allows a person's areas of interest to be linked directly to the occupational world. The SAVII has been developed and standardised for all South African population groups.

The purpose of the SAVII is to measure the occupational interests of South African learners of all population groups in grades 8 to 12. The questionnaire consists of 126 items, divided into six fields of 21 items each. The fields are :

1. Practical Realistic (P)
2. Scientific Investigative (W)
3. Artistic (A)
4. Social Services (S)
5. Business and Management (B)
6. Clerical Administrative (K)

These fields correspond to Holland's six personality types, namely Realistic, Investigative, Artistic, Social, Enterprising and Conventional.

The items describe job-related activities, and the respondent can respond with either "interested" or "not interested". The SAVII is particularly suited to career guidance and career decision-making applications (du Toit *et al.*, 1993).

The reliability coefficients for the SAVII are acceptable, and range from 0,76 to 0,92 according to the KR - 8 formula.

Administration of the SAVII took place in a classroom allocated by the school. The questionnaire was administered on the group as a whole and took approximately 30 minutes to complete. The SAVII was scored manually.

II) The Structured Objective Rorschach Test (SORT)

The SORT evaluates the personality in terms of mental functioning, interests, responsiveness and temperament and is effectively used for guidance, selection and placement. The SORT provides indications on leadership qualities, sense of responsibility, tendency towards inner conflict, creativity, drive, integrity and ability to solve problems, make decisions and communicate. The test is used, *inter alia*, to predict career success.

The SORT indicates reliability coefficients of between 0,30 and 0,77 with criterion-related validity coefficients as high as 0,87 and can be used on persons aged 5 years and older.

The SORT comprises 10 ink blots and 100 items, each having three possible answers. Each blot requires 10 responses from a choice of 30. So there are 30 possible responses for each blot, of which only 10 are selected, one from each set of three. The respondent is required to look at the blot and select a word or phrase that best describes what he or she sees in the blot.

The SORT was administered in a classroom allocated by the school. The testing was done via slide projector and slides. The group being tested was seated about five metres from the screen, and testing took approximately 45 minutes to complete. Scoring was done through a computerised psychometric program known as Siegmund, designed and developed by the Human Sciences Research Council

III) The Value Scale (VS)

The VS comprises 110 items which yield 22 separate scales, each of which measures a value or a striving for need satisfaction. The purpose of the VS is to assist a person by means of guidance to become aware of the need satisfaction he or she considers important for work satisfaction. The VS measures the following values or needs: Ability utilisation, achievement, advancement, aesthetics, altruism, authority, autonomy, creativity, cultural identity, economic rewards, economic security, life

styles, personal development, physical activities, physical prowess, prestige, risks, social interaction, social relations, spirituality, variety and working conditions.

The VS can be used with high school learners in career guidance programs and indicates reliability coefficients higher than 0,70 for English, Afrikaans and African languages speaking samples (Langley *et al.*, 1992b).

The VS was completed in a classroom allocated by the school, and took approximately 60 minutes to complete. It was scored manually.

The VS was the last psychometric test to be completed, and thus concluded phase two of the program. This phase of the program was designed to determine:

- The range of interests that the learner possessed in order to match and convert them into career insights.
- The learner's personality traits in order to determine the degree of synergy between personality and the demands of the occupational interests.
- The learner's level of readiness to make effective career decisions. Although the questionnaires did not give a direct indication of career choice, they did provide vital information regarding how much assistance the individual required in terms of career education.
- The relative importance of, and, degree of commitment to certain life roles. This served to determine the learner's tendencies towards work or study.
- The learner's needs in terms of attaining self-actualisation within the selected career. It is essential that the occupational choice is suited to the learner so that needs can be satisfied within the workplace.
- The high potential attributes of learners so that their best abilities and skills can be favourably matched with occupational interests.

Phase 3: Assessment centre - day one

On completion of the psychometric phase of the program learners were required to participate in an assessment centre comprising a series of group and individual activities, or exercises, that were designed to measure specific behaviour patterns. The "PACE" assessment centre was designed to measure preferences towards group work or individual work; leadership tendencies; ability to plan and organise; verbal

communication skills; rational versus emotive behaviour patterns; acceptance of authority and ability to manage stress.

While psychometric tests provide information on intrinsic functioning, they fail to provide an indication of the individual's physical behaviour. The assessment centre was designed to provide this information.

The assessment centre consisted of two exercises. The first was a competitive communication scenario. The subject for discussion was one that required learners to make certain value judgements, eliciting strong emotive responses. This exercise provided information on rigidity and stubbornness in behaviour. It also revealed rational versus emotive behaviour patterns and showed how the particular learners reacted to stress. The exercise also gave an indication of the learner's group functioning, and verbal communication styles.

The second exercise was a group survival exercise. The individuals were asked to rank items in terms of importance. This exercise provided information on rational versus emotive behaviour, leadership tendencies, acceptance of authority, group functioning, and ability to plan and organise.

Each of the exercises took approximately 25 minutes to complete. The learners were split into groups of five, and were observed, one group at a time. Scoring was done manually on a specifically designed nine point scale scoring sheet. Reliability and validity coefficients have not been established.

The completion of the assessment centre marked the end of the first day. The counsellor then set up individual appointments with each learner from the experimental groups for the following week.

Phase 4: First private counselling session - day two

During this phase, each learner was subjected to a private counselling session. During the interview, the counsellor explained and discussed the results of the previous two phases (day one) with the learner. The counsellor provided feedback on the individual's psychometric and behavioural profiles, and linked these to several suitable careers.

Each of the identified careers were discussed in depth. The learner was provided with a detailed synopsis of each career, highlighting aspects such as:

- The nature of the work in that specific occupation.
- The tools and equipment used within that occupation.
- The personal requirements needed in that occupation.
- The advantages and disadvantages of that occupation.
- The school subjects and level of schooling required for that occupation.
- Possible ways of training for the occupation.
- Possible employers.
- Areas of specialisation.
- Related occupations.
- Salary ranges.
- Opportunities for advancement.
- Future prospects

This phase of the program had a distinct career education focus, which is one of the facets comprising career maturity. The learner was then requested to reduce this initial career list to a shortlist of about five careers that he/she wanted to research.

On completion of this first interview the learner then moved onto the career guidance phase of the program.

Phase 5: Career planning workshop - day two

The emphasis during this phase was on career planning. Career selection is not a one-off occurrence, but rather a process in which the individual should become an active agent. As with any process, careful planning needs to be done, and it was during this phase that such planning took place.

The primary aim of this phase was to allow learners to evaluate their career short-list against other criteria, such as length of pre-entry period, financial rewards, type of work environment, other similar opportunities, potential employment opportunities, contingency plans etc. In this phase, learners used the information gathered during the preparation phase and initial interview to design (under supervision) an optional career path for each possible occupational choice.

A typical career path analysis looks similar to the one shown below:

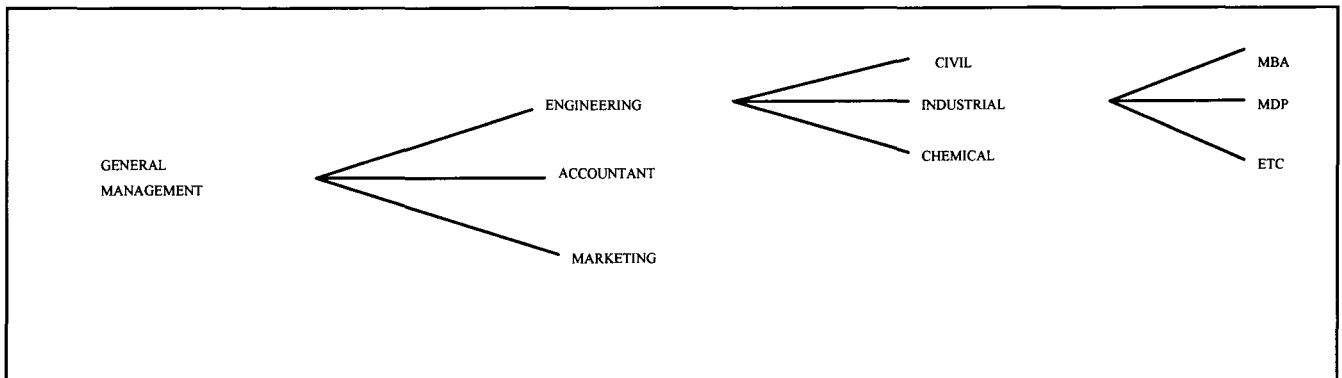


FIGURE 5: A typical career path analysis

The career path analysis depicted can be explained as follows. It is based on the assumption that an individual shows an interest in moving into general management, and has the abilities and personality to match.

The “PACE” career guidance program assisted the individual to identify a specialist area of study best suited to him or her. In the above analysis this area of speciality is engineering. To be more specific the program indicated that Industrial engineering was the most appropriate of the various engineering disciplines.

On entering the workplace, the individual will find that the nature of the work being carried out is highly technical by nature. As time passes the individual will begin to move up the organisational ladder. As such upward movement occurs, the nature of his or her work will become less technical and more managerial by nature. It is at this stage that the individual should consider doing some other form of study that is more appropriate to the nature of work that is now being conducted. The nature of study in the above analysis is a Master’s in Business Administration Degree (MBA). With an MBA degree behind his or her name, the individual is in a stronger position to reach a general management position.

The learners then, together with the counsellor, designed a practical plan for each career that could be put into action. These action plans took on a similar format to that shown below:

OCCUPATION	ACTION	TICK WHEN COMPLETE
1. Doctor	<ol style="list-style-type: none"> 1. Phone and make appointment with my GP to talk about his work. 2. Phone relevant universities and ask for application forms. 3. Apply to foundation XYZ for financial aid. 4. Make an appointment with my science teacher to discuss ways to improve my science mark. 	
2. Electrician	<ol style="list-style-type: none"> 1. Phone and make appointments with a few electrical firms to discuss the trade. 2. Draw up a résumés to leave with the person after the interview. 3. Send away application for certificate course at a technical college. 4. Find some form of holiday employment as an electricians assistant. 	

FIGURE 6: A typical action plan format

The aim of this process was to provide the learner with contingency careers, should acceptance into his or her first choice not materialise.

The counsellor now, together with the learner, designed a career path for each of the short-listed careers. This was aimed at helping the learner to focus on a step-by-step approach to follow his or her career.

On completion of the career planning phase the learner then moved onto the final interview where:

- Career paths were revised

- Financial considerations were discussed
- Résumés were designed (for learners in matric)
- Action plans were drawn up.

Phase 6: Final interview - day two

To conclude the program, the learner and counsellor met again to evaluate the various career paths and relative action plans that were prepared in the previous phase. The counsellor now helped the learner to prioritise the three most suitable and attractive careers decided upon during the previous phase. The final interview was aimed at providing the learner with a step-by-step follow-up plan. It was not expected that the learners should leave the program with a specific career that they were going to follow, but rather an investigative attitude that would encourage them to carry out intensive research into the careers that they felt they would like to follow-up on.

The final interview indicated the end of the program, allowed each individual to exit the program with a clearer occupational vision and very specific action plans.

Four weeks after completing the program the experimental groups (A and C) and the control groups (B and D) were asked to complete the Career Development Questionnaire again. This was to determine whether there had been any significant change in the career maturity levels of the groups, specifically the experimental groups. The placebo groups were also asked to complete the CDQ.

5.7 STATISTICAL ANALYSIS OF DATA

A statistical analysis of the data was conducted by the Statistical Consultation services division of the Potchefstroom University for CHE. The Statistical Analysis System (SAS) computer package (SAS Institute, 1985) was used.

5.8 HYPOTHESES

Based upon the objectives of the research the following hypotheses can now be formulated:

Null Hypotheses

Ho 1: The career maturity levels of grade 12 learners in the experimental group (group A) are not statistically significantly higher than those of grade 11 learners in the experimental group (group C).

Ho 2: The "PACE" career guidance program does not have a statistically significant effect on the career maturity levels of grade 11 learners.

Ho 3: The "PACE" career guidance program does not have a statistically significant effect on the career maturity levels of grade 12 learners.

Ho 4: The career maturity levels of grade 11 learners who undergo the "PACE" career guidance program are not statistically significantly higher than the career maturity levels of grade 12 learners who do not undergo the "PACE" career guidance program.

Alternative Hypotheses

H 1: The career maturity levels of grade 12 learners in the experimental group (group A) are statistically significantly higher than the career maturity levels of grade 11 learners in the experimental group (group C).

H 2: The "PACE" career guidance program has a statistically significant effect on the career maturity levels of grade 11 learners.

H 3: The "PACE" career guidance program has a statistically significant effect on the career maturity levels of grade 12 learners.

H 4: The career maturity levels of grade 11 learners who undergo the "PACE" career guidance program is statistically significantly higher than the career maturity levels of grade 12 learners who do not undergo the "PACE" career guidance program.

5.9 CHAPTER SUMMARY

This chapter classified the dependent and independent variables. It discussed the basis upon which the subjects for the research were selected, as well as the instrumentation used to measure the effects of the independent variable on the dependent variable. The chapter provided a description of the statistical design that would determine such effect. It furthermore discussed the procedure employed during the research, and discussed the independent variable in some detail.

Although the independent variable or "PACE" career guidance program was developed with the utmost care, the need arose for determining the effect, if any, of the program on the dependent variable (career maturity levels of learners in the program). In the next chapter a description of the results of the research is given to determine this effect.

CHAPTER 6

RESULTS OF THE RESEARCH

6.1 Introduction

6.2 Results and interpretation

6.2.1 Career maturity levels of grade 11 and 12 learners

6.2.2 The influence that the "PACE" career guidance program had on its participants (pre-test vs post-test)

6.2.2.1 The influence that the "PACE" career guidance program had on grade 11 learners (pre-test vs post-test)

6.2.2.2 The influence that the "PACE" career guidance program had on grade 12 learners (pre-test vs post-test)

6.2.3 The influence that the "PACE" career guidance program had on the combined group of grade 11 and 12 learners who underwent the program (pre-test vs post-test)

6.2.4 A comparison of the career maturity levels of grade 11 learners who underwent the program (experimental group C) (post-test) and grade 12 learners before undergoing the program (experimental group A) (pre-test)

6.2.5 The influence that the Career Development Questionnaire had on the career maturity of learners exposed to it.

6.3 Chapter summary

CHAPTER 6

RESULTS OF THE RESEARCH

6.1 INTRODUCTION

In this chapter the results of the research are reported. The results are analysed and discussed in relation to the hypotheses. Interpretations of and possible explanations of these results are provided.

As stated in chapter 5 the instrument used for measuring of the Dependent Variable (DV) was the Career Development Questionnaire (CDQ). The CDQ was developed to determine the career maturity levels of individuals by establishing the readiness of adolescents and young adults to make decisions concerning their careers.

Career maturity comprises five dimensions. In order to measure career maturity it was necessary to measure each of the five dimensions that constitute career maturity individually, and then combined, to provide an overall career maturity index.

The five dimensions that constitute career maturity are :

1. Self information: Obtaining information by the person on himself, and converting this information to self-knowledge.
2. Decision-making: Acquiring decision-making skills and applying them in effective decision-making.
3. Career information: Gathering career information and converting it into knowledge of the occupational world.
4. Integration: Integration of self-knowledge and knowledge of the occupational world.
5. Career planning: Implementation of knowledge in career planning.

6.2 RESULTS AND INTERPRETATION

Each of the four hypotheses as stated in chapter 4 will be tested against each of the five dimensions that comprise career maturity, as well as against the overall score of these five dimensions which, in turn, reflects an individuals overall level of career maturity.

The purpose of the research is to determine whether or not the "PACE" career guidance program has any effect on the career maturity levels of those who are subjected to it. To establish this, the first step was to determine whether or not there was any difference in the career maturity levels of grade 11 and 12 learners before any form of intervention.

6.2.1 Career Maturity Levels of grade 11 (Group C) and 12 (Group A) learners

The career maturity levels of grade 11 and 12 learners in the experimental groups (pre-test) are shown in table 3.

As indicated in table 3 it would seem that $H_0 1$ is rejected on one of the dimensions that make up career maturity; namely variable 4 (Integration of Self information with Career Information).

$H_0 1$ cannot, however, be rejected for variables 1 (Self information), variable 2 (Decision-making), variable 3 (Career Information), variable 5 (Career Planning), and for the composite score.

$H_0 1$ is, therefore, accepted for the variable Integration of Self information with Career Information. It seems, therefore, that grade 12 learners only in fact have a higher career maturity level than grade 11 learners on the above dimension.

On applying Cohen's (1977) statistical method of determining practical significance the variable Integration of Self information with Career Information (variable 4) showed not only a statistically significant difference, but also a practically significant difference between grade 11 and grade 12 learners.

Table 3 therefore suggests that there was neither a statistical significant difference nor a practical significant difference between grade 11 and grade 12 learners with regards to the variables Self information, Decision-making, Career Information, Career Planning, and for the composite score. Table 3 does however suggest that grade 12 learners are able to integrate self knowledge with career information better than their grade 11 counterparts.

TABLE 3: The career maturity levels of grade eleven (N=15) and twelve (N=15) learners in the experimental groups (pre-test)

NO.	CAREER MATURITY VARIABLE	GRADE ELEVENS (Group C:N=15)		GRADE TWELVES (Group A:N=15)		t	P	ω^2
		\bar{X}	S	\bar{X}	S			
1	SELF INFORMATION	13.4	3.33	14.9	3.00	-1.27	0.2157	
2	DECISION-MAKING	12.7	4.77	15.4	3.33	-1.77	0.0882	
3	CAREER INFORMATION	11.3	4.22	11.9	4.25	-0.39	0.7010	
4	INTEGRATION	12.5	3.81	16.2	3.30	-2.82	0.0089*	0.16 #
5	CAREER PLANNING	10.7	4.42	13.0	3.18	-1.61	0.1192	
	COMPOSITE SCORE	12.1	3.49	14.3	2.74	-1.86	0.0738	

* : $p < 0.05$ (Statistical significance)

: $\omega^2 > 0.14$ (Practical significance)

\bar{X} = Mean

A possible explanation for this is the fact that the grade 12 learners are on an average at least one year older than their grade 11 counterparts, and have thus had greater exposure to the CED career guidance syllabus. Furthermore, the age difference could imply a greater degree of general maturity amongst the grade 12 learners.

The next aspect to be reported on is the influence, if any, that the "PACE" career guidance program had on the learners that underwent it.

6.2.2 The influence that the "PACE" career guidance program had on its participants

A pre-test/post-test analysis of the results is provided in tables 4 and 5. A comparison is made for both grade 11 (table 4) and grade 12 (table 5) learners respectively, and is shown in terms of control group versus experimental group.

6.2.2.1 The influence that the "PACE" Career Guidance Program had on grade 11 learners (pre-test vs post-test) (see table 4)

In the grade 11 experimental group, H_{o2} is rejected in terms of the dimensions, Career Information (variable 3), Integration of Self information with Career Information (variable 4), and Career Planning (variable 5), as well as the composite score. H_{o2} cannot, however, be rejected for the dimensions Self Information (variable 1) and Decision-making (variable 2), within the grade 11 experimental group.

It is of interest to note, however, that the control group, who were not subjected to the "PACE" career guidance program, showed a statistically significant increase in the variables Self information (variable 1) and Career Planning (variable 5), as well as the composite score. The statistically significant increase in both the Career Planning dimension (variable 5) and the composite score, were not of practical significance.

TABLE 4: The career maturity levels of grade eleven learners in the control group (Group D) and in the experimental group (Group C) (pre-test vs post-test)

NO.	CAREER MATURITY VARIABLE	CONTROL GROUP GRADE ELEVENS (Group D:N=15)					EXPERIMENTAL GROUP GRADE ELEVENS (Group C : N=15)				
		\bar{X}	S	t	P	ω^2	\bar{X}	S	t	P	ω^2
1	SELF INFORMATION	-2.00	2.73	-2.84	0.0131 *	0.19 #	-2.53	4.73	-2.07	0.0517	
2	DECISION-MAKING	-1.27	3.24	-1.51	0.1522		-2.80	6.48	-1.67	0.1166	
3	CAREER INFORMATION	-0.67	3.56	-0.73	0.4801		-3.40	4.21	-3.13	0.0074 *	0.23 #
4	INTEGRATION	-0.60	2.16	-1.07	0.3012		-3.13	5.17	-2.35	0.0340 *	0.13
5	CAREER PLANNING	-2.07	3.35	-2.39	0.0314 *	0.13	-3.33	4.44	-2.91	0.0114 *	0.21 #
	COMPOSITE SCORE	-1.32	2.35	-2.17	0.0478*	0.11	-3.04	4.64	-2.54	0.0236 *	0.14 #

* : $p < 0.05$ (Statistical significance)

\bar{X} = Mean difference

: $\omega^2 > 0.14$ (Practical significance)

TABLE 5: The career maturity levels of grade twelve learners in the control group (Group B) and in the experimental group (Group A) (pre-test vs post-test)

NO.	CAREER MATURITY VARIABLE	CONTROL GROUP GRADE TWELVES (Group B:N=15)					EXPERIMENTAL GROUP GRADE TWELVES (Group A : N=15)				
		\bar{X}	S	t	P	ω^2	\bar{X}	S	t	P	ω^2
1	SELF INFORMATION	-0.61	1.51	-1.55	0.1442		-2.21	3.42	-2.49	0.0261 *	0.15 #
2	DECISION-MAKING	-0.61	2.13	-1.09	0.2941		-1.67	2.61	-2.47	0.0268 *	0.15 #
3	CAREER INFORMATION	-0.47	2.33	-0.78	0.4501		-5.13	3.94	-5.04	0.0002 *	0.44 #
4	INTEGRATION	-0.21	1.82	-0.43	0.6771		-1.67	3.62	-1.78	0.0961	
5	CAREER PLANNING	-0.27	1.38	-0.75	0.4688		-4.13	3.09	-5.18	0.0001 *	0.46 #
	COMPOSITE SCORE	-0.43	1.16	-0.42	0.1765		-2.96	2.23	-5.14	0.0001 *	0.46 #

* : $p < 0.05$ (Statistical significance)

\bar{X} = Mean difference

: $\omega^2 > 0.14$ (Practical significance)

The increase in the variable, Self information (variable 1) in the control group could be the result of two factors. Either the measuring instrument (CDQ) itself, led to some form of increase in this variable; alternately, the length of time that elapsed between the pre- and post-test, led to some form of increase, or a combination of the two factors. The analysis of the relationship between the control groups, pre-test, and the placebo group, post-test only, (see table 9), helped in determining whether the increase was due to the CDQ or a possible maturation process in the time period between the pre- and post-test.

H 2 can therefore, be accepted for the variables, Career Information (variable 3), Integration of Self Information with Career Information (variable 4), and Career Planning (variable 5), as well as for the composite score. It seems that the career maturity levels of grade 11 learners did increase significantly after exposure to the "PACE" career guidance program, on three of the five dimensions that constitute career maturity, as did the composite score.

While there seemed to be a statistically significant increase in three of the five variables, only two of the variables, namely, Career Information (variable 3) and Career Planning (variable 5), as well as the composite score, showed a practically significant increase.

The variable that showed the greatest significant increase was that of Career Information. A possible reason for this is that the program educates participants about only those specific careers that are best suited to them, and also encourages the learners to visit practitioners in those selected careers, providing them with a finer understanding of the details of the career. This intensive research all contributes to an increase in the learner's career information, and is supported by Krumboltz's social learning theory (Brown and Brooks, 1990).

Career Planning too, showed both a statistical and practical significant increase after exposure to the program. This increase could possibly be attributed to the manner in which the "PACE" career guidance program focuses on a step-by-step approach to entering the job market. One of the biggest concerns highlighted by the both the grade 11 and 12 learners, was their uncertainty about the subjects that 'mattered', - to be

accepted into their prospective career, and the next step after the completion of matric. The “PACE” career guidance program addressed both these concerns.

Based upon the results outlined in table 4, it would seem that exposure to the “PACE” career guidance program did in fact increase the career maturity levels of grade 11 learners statistically in three of the five variables, as well as in the composite score, and practically in two of the five variables, as well as the composite score, that constitutes career maturity.

6.2.2.2 The influence that the "PACE" Career Guidance Program had on grade 12 learners (pre-test vs post-test) (see table 5)

Based upon the results of the grade 12 experimental group, $H_0 3$ cannot be rejected concerning the variables Self Information (variable 1), Decision-making (variable 2), Career Information (variable 3), and Career Planning (variable 5), as well as for the composite score. $H_0 3$ cannot, however, be rejected for the variable Integration of Self Information with Career Information (variable 4). This suggests that the integration of Self Information with Career Information failed to improve significantly amongst grade 12 learners.

$H_0 3$ can, therefore, be accepted for variables Self Information (variable 1), Decision-making (variable 2), Career Information (variable 3), and Career Planning (variable 5), as well as for the composite score.

In contrast to this, no statistically significant increase took place in any of the variables as far as the grade 12 control group is concerned.

Career Planning showed the highest significant increase in the grade 12 experimental group, for possibly the very same reason that explains the increase in the same variable within the grade 11 experimental group. Self Information and Career Information, too, showed significant increases. The Decision-making variable also showed an increase with the grade 12 group of learners after exposure to the program. This variable did not, however, show an increase in the grade 11 group. A possible explanation for this is the greater need for grade 12 learners to make career-related decisions. This greater need could have meant that many of the grade 12 learners had in fact already decided on a

career, and the “PACE” career guidance program merely served to reinforce those decisions.

In terms of practical significance, the variables Self Information (variable 1), Decision-making (variable 2), Career Information (variable 3), and Career Planning (variable 5), as well as the composite score, showed a significant increase in the grade 12 experimental groups.

In summary, based upon the results shown in table 5, it would seem that exposure to the “PACE” career guidance program did in fact increase the career maturity levels of grade 12 learners in four of the five dimensions, as well as in the composite score, that constitute career maturity. In addition, it seems that the “PACE” career guidance program had a greater impact on the career maturity levels of grade 12 learners than on their grade 11 counterparts.

The question that arises is whether or not the combined group of grade 11 and grade 12 learners who underwent the “PACE” career guidance program showed a significant increase in their levels of career maturity, as indicated by the individual variables.

6.2.3 The influence that the “PACE” career guidance program had on the combined grade 11 and combined grade 12 learners who underwent the program (pre-test vs post-test) (see table 6)

Table 6 shows results of the combined group of grade 11 and the combined group of grade 12 learners (pre-test versus post-test) in each case.

Table 6 brings two factors to light. It suggests that when the career maturity levels of the experimental groups are combined and compared before and after exposure to the “PACE” career guidance program, there is a statistically significant increase in all of the dimensions that constitute career maturity, as well as the overall score, and that these increases were also of practical significance. This is supported by the Hotelling analysis indicated in Table 7. The Hotelling analysis combines the individual variables that constitute career maturity, and it provides an overall career maturity index. The results suggest that the overall career maturity of all learners who underwent the “PACE” career guidance program showed a statistically significant increase in their career maturity levels after exposure to the program.

The D square score (Du Toit, 1984) in table 7 further suggests that not only was there a statistically significant increase in the career maturity of participants who underwent the "PACE" career guidance program, but that these increases were also of practical significance. Table 7 shows another significant finding. It suggests that the combined control groups, even though they were not subject to the program, showed an increase in the career maturity dimensions Self Information (variable 1), and Career Planning (variable 5). These increases are also of practical significance.

There are two possible reasons for this increase : Firstly, it may be ascribed to development that occurred purely due to the inherent content of the Career Development Questionnaire (CDQ). Another possible reason for this increase, could be the maturation that occurred between the pre-test and post-test period. The analysis of the relationship between the control groups post-test, and the placebo group (see table 9), will help to determine whether or not the increase was due to the CDQ or the time period between the pre- and post-test.

The results thus far indicate that the "PACE" Career Guidance program significantly increases the career maturity levels of learners who are subjected to it. The question of the extent to which the career maturity of participants increases arises.

6.2.4 A comparison of the Career Maturity levels of grade 11 learners who underwent the program (experimental group C) (post-test) and grade 12 learners before undergoing the program (experimental group A) (pre-test) (see table 8)

Table 8 shows the results of the grade 11 learners' post-test compared to the grade 12 pre-test (experimental groups).

The results shown in table 8 indicate that $H_0 4$ cannot be rejected for all five of the dimensions that constitute career maturity. This implies that H_4 is not accepted for all of the five dimensions constituting career maturity.

Although the results indicated in table 4 suggest that the career maturity levels of grade 11 learners who underwent the "PACE" career guidance program did in fact increase, table 8 suggests that the increase was not so high that it elevated their career maturity significantly above that of their grade 12 counterparts before undergoing the program.

TABLE 6 : Career maturity levels of the combined grade eleven and grade twelve learners after exposure to the “Pace” program (pre-test vs post-test)

NO.	CAREER MATURITY VARIABLE	COMBINED CONTROL GROUPS					COMBINED EXPERIMENTAL GROUPS				
		GRADE ELEVENS AND TWELVES (N=30)					GRADE ELEVENS AND TWELVES (N=30)				
		\bar{X}	S	t	P	D	\bar{X}	S	t	P	D
1	SELF INFORMATION	-1.31	2.28	-3.12	0.0041 *	0.57 #	-2.37	4.06	-3.19	0.0034 *	0.58 #
2	DECISION-MAKING	-0.93	2.72	-1.88	0.0698		-2.23	4.89	-2.51	0.0183 *	0.45 #
3	CAREER INFORMATION	-0.56	2.96	-1.05	0.3024		-4.27	4.11	-5.69	0.0001 *	1.04 #
4	INTEGRATION	-0.41	1.98	-1.11	0.2766		-2.41	4.45	-2.96	0.0061 *	0.54 #
5	CAREER PLANNING	-1.17	2.68	-2.39	0.0238 *	0.44 #	-3.73	3.78	-5.41	0.0001 *	0.99 #
	COMPOSITE SCORE	-0.87	2.52	-1.91	0.1353		-3.00	4.25	-3.95	0.0056 *	0.72 #

* : p < 0.05 (Statistical significance)
 # : D > 0.08 (Practical significance)

\bar{X} = Mean difference

TABLE 7: The change in the career maturity of the experimental groups (N=30) when combining the variables (pre-test vs post-test)

CAREER MATURITY COMPOSITE	COMBINED EXPERIMENTAL GROUPS GRADE ELEVENS AND GRADE TWELVES (N=30)			
	D SQUARE	T SQUARE	F VALUE	P
HOTELLING	1.570	23.545	4.385	0.0021 *

* : $p < 0.05$ (Statistical significance)

TABLE 8 : The career maturity levels of grade eleven post-test learners and grade twelve pre-test learners

NO.	CAREER MATURITY VARIABLE	GRADE ELEVENS EXPERIMENTAL GROUP (POST-TEST) (N ₁ =15)		GRADE TWELVES EXPERIMENTAL GROUP (PRE-TEST) (N ₂ =15)		t	P	ω^2
		\bar{X}	S	\bar{X}	S			
1	SELF INFORMATION	15.9	2.87	14.9	3.00	1.00	0.33	
2	DECISION-MAKING	15.5	3.42	15.4	3.33	0.11	0.91	
3	CAREER INFORMATION	14.7	3.53	11.9	4.25	1.96	0.06	
4	INTEGRATION	15.7	3.44	16.2	3.30	-0.43	0.67	
5	CAREER PLANNING	14.1	3.10	13.0	3.18	0.93	0.36	
	COMPOSITE SCORE	15.2	2.71	14.3	2.74	0.91	0.37	

* : $p < 0.05$ (Statistical significance)

: $\omega^2 > 0.14$ (Practical significance)

\bar{X} = Mean

6.2.5 The influence that the Career Development Questionnaire had on the career maturity (Dependant Variable) of the learners exposed to it.

Due to the possibility that the career maturity could improve due an independent variable other than the program, it was decided to include in the research design a placebo group that would allow the identification of such external influences.

As was indicated in table 6, it was apparent that some form of maturing did in fact occur within the control groups during the period between the pre-test and the post-test. This maturation occurred within the variables, Self Information (variable 1) and Career Planning (variable 2).

The question that arises is whether this maturation was the result of some other independent variable, or as a result of being exposed to the Career Development Questionnaire.

A t-test statistical analysis was conducted for the control groups (post-test), and the placebo groups (post-test). When comparing the grade 11 post-test and grade 11 placebo group (table 9), there seemed to be a statistically significant increase in the dimensions Career Information (variable 3), Career Planning (variable 5), as well as for the composite score. The results in table 9 further suggest that exposure to the Career Development Questionnaire did have a statistically significant increase on two of the five variables, as well as on the composite score, of the grade 11 group.

In terms of practical significance, it was only the dimension Career Information (variable 3) that showed to have a practically significant increase as a result of exposure to the Career Development Questionnaire, with the grade 11 group.

The results in table 10 indicate neither a statistical nor a practical significant difference between the control groups (post-test) and the placebo groups (post-test), for the grade 12 group. This implies that the maturation that occurred within the grade 12 group was in fact not due to being exposed to the Career Development Questionnaire, but rather the time period that elapsed between the pre-test and post-test.

TABLE 9: The career maturity levels of grade 11 learners (post-test)

NO.	CAREER MATURITY VARIABLE	CONTROL GROUP GRADE ELEVENS (POST-TEST) (N ₁ =15)		PLACEBO GROUP GRADE ELEVENS (POST-TEST) (N ₂ =15)		t	P	ω ²
		\bar{X}	S	\bar{X}	S			
1	SELF INFORMATION	14.73	2.79	13.87	3.04	0.81	0.42	
2	DECISION-MAKING	14.47	2.64	12.73	3.81	1.45	0.16	
3	CAREER INFORMATION	14.00	3.55	10.73	3.73	2.46	0.02*	0.14#
4	INTEGRATION	15.07	2.31	14.27	2.52	0.91	0.37	
5	CAREER PLANNING	14.07	3.01	11.80	2.96	2.08	0.05	0.09
	COMPOSITE SCORE	14.47	2.23	12.68	2.50	2.07	0.05	0.09

* : p < 0.05

: ω² > 0.14 (Practical significance)

\bar{X} = Mean

TABLE 10: The career maturity levels of grade 12 learners (post-test)

NO.	CAREER MATURITY VARIABLE	CONTROL GROUP GRADE TWELVES (POST-TEST) (N ₁ =15)		PLACEBO GROUP GRADE TWELVES (POST-TEST) (N ₂ =15)		t	P	ω ²
		\bar{X}	S	\bar{X}	S			
1	SELF INFORMATION	15.87	2.39	14.60	2.61	1.39	0.18	
2	DECISION-MAKING	16.27	3.45	13.73	4.41	1.75	0.09	
3	CAREER INFORMATION	15.47	4.36	14.46	4.28	0.76	0.45	
4	INTEGRATION	16.93	2.96	15.06	2.63	1.82	0.08	
5	CAREER PLANNING	16.00	3.09	14.40	4.03	1.22	0.23	
	COMPOSITE SCORE	16.11	2.83	14.41	3.13	1.55	0.13	

* : p < 0.05 (Statistical significance)

: ω² > 0.14 (Practical significance)

\bar{X} = Mean

6.3 CHAPTER SUMMARY

In this chapter a description of the research results and an interpretation of them were provided. A brief description of the career maturity dimensions was again provided. Attention was given to testing the hypotheses set out in chapter five. Special emphasis was given to those dimensions that showed a statistically significant difference, and possible explanations were provided for such differences.

Hereby the fourth research question has been answered and the fourth specific goal reached, namely to determine whether a career guidance program that includes all the elements that a sound program should include, does indeed increase the career maturity of learners that have been exposed to it.

Chapter 7 will provide a summary of the results of the research so that certain conclusions can be made. Certain suggestions as to further research will also be discussed.

CHAPTER 7

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

7.1 Introduction

7.2 Summary and conclusions

7.3 Recommendations

7.4 Suggestions for further research

CHAPTER 7

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

7.1 INTRODUCTION

In accordance with the objectives of the dissertation as specified in chapter one, namely;

- To identify the situation surrounding career guidance in South Africa.
- To identify, from a review of the literature, those elements that constitute a sound career guidance program.
- To design a career guidance program that will include all or most of these elements.
- To determine whether this program, when applied to a group of learners, increases their career maturity levels.

information has been gathered and analysed.

This chapter will summarise these results, as well as make certain inferences and recommendations regarding further research.

7.2 SUMMARY AND CONCLUSIONS

The following summaries are provided and conclusions made regarding the objectives of this dissertation.

7.2.1 Summary and conclusions regarding the situation surrounding career guidance in South Africa

Career guidance in South Africa is offered by schools, non-governmental organisations, private organisations and individuals. Career guidance at schools is however a non-examinable subject and although there is a curriculum to be followed the majority of schools do not have the resources to teach the curriculum. This places a greater emphasis on the need for other providers of career guidance to offer career guidance programs that can increase the career maturity of learners in a shorter time period.

According to Mr E. Williamson (2000), career guidance interventions will need to begin at a far earlier age. An earlier intervention is required to assist learners at the end of grade nine, in deciding whether or not to leave the school environment and enter into a Government aided learnership program, or indeed continue with grades ten, eleven, and twelve so as to acquire their further education and training certificate.

Resulting from discussions with Mr. E. Williamson (2001), this researcher is piloting the model of including career guidance interventions into each school subject rather than as a stand-alone subject, and thus making career guidance an examinable subject through including it as part of the portfolio for each school subject. It is this researcher's contention that this will alleviate many of the problems surrounding career guidance at schools.

Whilst subject based career guidance will possibly contribute to increasing the career maturity of learners in the earlier grades, the need for sound career guidance programs in grades ten, eleven and twelve still exists. Existing career guidance programs concentrate on either the assessment and counselling aspects or the assessment and education aspects of career guidance, but very few concentrate on both. There is a need to design career guidance programs that combine assessments with career education and counselling, and also focus on long term career planning.

7.2.2 Summary and conclusions regarding the elements that make up a sound career guidance program

Career choice and development theories are primarily split into two schools, namely *psychological* theories, which emphasise the matching of individual traits to a career, and the *social* theories, which emphasise past experiences as core elements in the career selection process. Certain theories combine elements of both schools of thought. An ideal career guidance program should attempt to do the same as both schools of thought have valid implications on career selection.

The results of the literature study showed that each of the theories researched had specific elements that could be incorporated into a career guidance program.

The trait and factor theory suggests that each individual is unique in that each displays a unique set of traits that should be matched to occupations. This matching process may occur through psychometric testing. Social development theory suggests that career choice is influenced through interaction with the environment, and a career guidance program should therefore contain an element of exposure to the world of work, as part of the career maturation process. Holland's career development theory emphasises the elements of 'knowledge of self' and 'knowledge of the world of work', as central to the career choice process. This suggests that a career guidance program should contain a strong educational emphasis. Super's self concept theory suggests that a career guidance program should be a motivational experience for learners. A sound career guidance program should assist the learner to see the relationship between him-/herself as a person and careers, and then encourage him/her to feel positive about the career options available to him/her. Restle's decision-making model suggests that career guidance programs should contain an educational element to ensure that the image or schemata the individual has of a career is in fact synergistic with the reality of the career.

Career guidance programs should serve as a reality check to encourage synergy between the individual's perception of the career and the realities of the career. A career guidance program should not allow an individual to leave the program, with merely a list of suitable occupations. On the contrary, a career guidance program should encourage career research and experience, future planning and investigation.

7.2.3 Summary and conclusions regarding the design of a career guidance program

Results from the literature study surrounding career guidance in South Africa showed that there were two main forms of career guidance delivery, namely Counsellor Directed and Computer Directed. Each of these career guidance programs contain different elements of a career guidance process, but neither contain all the elements.

The literature study surrounding career development theory provided insight into the elements that would make up a comprehensive career guidance program. A career guidance program, namely the “PACE” career guidance program, was designed to better equip learners to make a realistic career choice by including as many of these elements as possible.

Whilst career guidance programs contain the elements of psychometric testing and career education, the “PACE” career guidance program also includes the elements of self-awareness, long term career planning and career preparation. Whilst the “PACE” career guidance program does offer a more comprehensive solution for learners in terms of career choice, it does require a greater time commitment from them.

7.2.4 Summary and conclusions regarding the empirical research of the impact of a career guidance program on the career maturity of learners

The results of the empirical research has relevance to learners in East London who fall within the jurisdiction of the Eastern Cape Department of Education (ECDE), school syllabus. As a result any inferences made should be done in respect to this. Results from this research should not be generalised to learners throughout the whole country but rather to the population group from East London schools. The following conclusions can be drawn:

7.2.4.1 Career maturity of the total research group.

There was no significant difference in the career maturity levels of the grade 12 learners when compared to grade eleven learners, except on the dimension Integration of Self Information with Career Information. This can possibly be due to the more immediate need amongst grade 12 learners to make a career decision.

7.2.4.2 Career maturity after exposure to the "PACE" career guidance program

The composite career maturity levels of both the grade 11 and grade 12 groups increased significantly after exposure to the "PACE" career guidance program. This suggests that the program plays a vital role in enhancing the readiness of grade 11 and grade 12 learners to make career related decisions.

More specifically, the grade 11 group showed a significant increase on the career maturity dimensions Career Information, Integration of Self Information with Career Information, and Career Planning, as well as the composite career maturity score. The "PACE" career guidance program is not designed to encourage learners to make a career related decision immediately after exposure, but rather to encourage learners to begin the career selection process.

The career maturity levels of the grade 12 learners also increased significantly on all the career maturity dimensions except Integration of Career Information with Self Information. This suggests that the "PACE" career guidance program failed to significantly increase the grade 12 learners' ability to integrate Self-Knowledge with Career Types. The "PACE" career guidance program should perhaps place greater emphasis during the workshop phase of the program on discussing the personal attributes required for the careers that have been identified.

7.2.4.3 A comparison of the career maturity levels of grade 11 learners after exposure to the program with that of the grade 12 learners before exposure to the program

Although the career maturity levels of grade 11 learners did increase significantly, this increase did not accelerate their career maturity levels above the levels of the grade 12s that were not exposed to the program. A possible explanation for this is the fact that additional attention is given to the urgency of career selection in grade 12 school career guidance classes. It is feasible that on entering grade 12, learners tend to become far more focused on the relevance and importance of career selection, far more so than in their grade 11 year. This may be a contributing factor to the higher career maturity levels that grade 12 learners show over their grade 11 counterparts as suggested in chapter 6.

7.3 RECOMMENDATIONS

As a result of the research, the following recommendations regarding the practice of career guidance, seem to be in order:

- ◆ For learners to gain maximum benefit from career guidance, greater attention needs to be given to the individuals' history and background. This will provide a more holistic picture of the individual, thus allowing for greater accuracy during the career identification process.
- ◆ While some career guidance programs focus on the guidance aspect only, others tend to focus on the career education aspect, whilst some tend to combine them. An aspect that is not given sufficient attention is the career development aspect of the career selection process. To attain an optimal and meaningful result all three aspects namely, career education, career guidance and career development should be included into a career guidance program.
- ◆ A further suggestion relates to the length of the career guidance intervention. Most career guidance programs run over a half to a one-day period. For a program to provide a more lasting result, the intervention should last between eight to twelve months. Due to results of this research the "PACE" career guidance program has been modified to allow for this.
- ◆ The notion of one career for life is rapidly fading, and is gradually being replaced with the idea that an adult can expect to have multiple careers during his/her working life. It is, therefore, becoming increasingly important for program developers to consider the interrelationship between and within different occupational groups. This can enable career decision-makers to take a long-term view of their career choice.
- ◆ While motivation is an essential part of a career guidance program, there also needs to be a degree of realism. Many learners wish to follow careers that would enhance their self concept, irrespective of the fact that they will never be accepted into those careers. This is especially common amongst black learners.

7.4 SUGGESTIONS FOR FURTHER RESEARCH

Additional research should be carried out in the following areas pertaining to maturity :

- ◆ To determine whether or not there is any difference in the career maturity of grade 11 and grade 12 learners who attend government schools versus those who attend private schools.
- ◆ To determine whether or not there is any difference between the career maturity levels of girls and boys.
- ◆ To determine whether or not there is a difference in the career maturity levels of different cultures.
- ◆ To determine whether or not there is a relationship between an individual's self concept and career maturity level.
- ◆ To determine whether or not there is a relationship between an individual's career maturity level and socio-economic status.
- ◆ To determine whether individuals with a higher or lower entrepreneurial nature show a higher or lower level of career maturity.
- ◆ To determine whether career guidance interventions at primary school can impact on the career maturity levels of high school learners.

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