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PSYCHO-SOCIAL FACTORS INFLUENCING CAREER DECISION-MAKING OF GRADE 12 LEARNERS IN TOWNSHIP SECONDARY SCHOOLS IN GAUTENG SOUTH AFRICA

By

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A thesis submitted for the fulfilment of the requirements of the degree of **Doctor of Philosophy in Psychology of Education** in the Wits School of Education, Faculty of Humanities, at the **University of Witwatersrand**

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ABSTRACT

Consideration is given to career decision-making as a life-long process that takes individual's strength and attention over the course of a lifetime. Career decision-making is a developmental process that includes every individual's duties prior to the beginning of a career and after retirement. Moreover, career decision-making is an important step that requires thorough knowledge of environment and the nation's economy. In South Africa, many learners in township schools do not have sufficient information concerning career options, and therefore the choices that they make are entrenched in their perception of the perfect occupation, the subjects they select at Grade 10 in secondary school and the influences around them. This could be related to psychological and social factors. In addition, little literature in South Africa's context is available on career decision-making among learners. Consequently, this study attempted to investigate the psychological and social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng; South Africa. The study was conducted in the Gauteng East District, one of the educational districts with the greatest concentration of township Secondary Schools.

The main goal of this study was to examine the psycho-social factors that influence career decision-making among Grade 12 learners in township Secondary Schools. The study also looked at the challenges that Grade 12 learners at township Secondary Schools encounter while choosing their careers. Finally, the study sought to develop a structural equation modelling that can explain the relationship between psychological and social factors and career decision-making.

Within the mixed methods research paradigm, concurrent triangulation research design was adopted. Thus, a mixed methods research methodology in which both quantitative and qualitative approaches was adopted. The target population comprised 720 Grade 12 learners at the selected six Township Secondary Schools in Gauteng East District. For the quantitative phase, 204 Grade 12 learners from six distinct township Secondary Schools were obtained using a stratified random sampling technique. A sample size of 23 Grade 12 learners was chosen for the online interviews for the qualitative phase of the study using the purposive sampling method. For the quantitative phase, the research tools such as Locus of Control Scale (LCS), Big Five Personality Inventory (BFPI), Self-Efficacy Scale (SES), Career Interest Questionnaire (CIQ), Parental

Influence Questionnaire (PIQ), Peer Influence Questionnaire (PIQ) and Career Decision Making Questionnaire (CDMQ) were used to collect data from learners. For the qualitative phase, semi-structured interviews were used to collect data from learners. Validity of questionnaires was ensured by Keyser Meyer Oklin test while reliability was ascertained by use of Cronbach's alpha. In addition, the trustworthiness of qualitative data was ensured.

The findings of the study indicated that the personality types such as extraversion, conscientiousness, agreeableness, and openness to experience, significantly influenced career decision-making of the learners. Furthermore, social factors such as peers, teachers, career information services and older siblings influenced career decision-making among Grade 12 learners. Moreover, the findings revealed that learners whose parents had formal education (university, college, high and primary schools) substantially influenced sound career decision-making of the learners. The findings also revealed that family related challenges, school related challenges and community related challenges all influenced career decision-making among Grade 12 learners. This study indicated that Grade 12 learners in township Secondary Schools were most significantly influenced by their career interests. The study also showed that age and gender, as demographic characteristics, had an influence on learners' career decisions. From the structural equation model, of the psychological factors, career interest had the greatest influence on career decision making among Grade 12 learners.

The study concluded that personality traits and career interests are important in enhancing effective career decision making and that learners with conscientiousness personality are best placed to make accurate career decisions while learners with neuroticism personality had poor career decision-making skills. The study further concludes that peers and friends have an influence on Secondary School learners' career decisions, which is an aspect that learners should be aware of while choosing their careers. In conclusion, the psycho-social model for career decision-making is appropriate and fit for demonstrating the structural relationship between psychological, social factors and career decision-making among Grade 12 learners. From the findings, the study proposes an 8-stage Career Decision Making Model which could assist learners in Secondary Schools to make specific career decisions. The study recommends that the Department of Basic Education should develop skills training and career intervention programs such as career expos to

be held in schools to introduce learners to numerous vocations rather than focusing just on content or academics. In order to provide teachers with the social, career development, and educational skills necessary to meet the needs of learners, the Department of Education should train and retrain teachers who specialise in guidance counselling (Life Orientation teachers), and guidance training should be given priority in funding.

Key Words: *Career; decision-making; Grade 12 learners; Secondary Schools; Township schools; Psychological Factors; Social factors*

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DECLARATION

I, Oluwakemi Bolanle Ajayi, hereby declare that this PhD thesis is my original work, and that all sources used or quoted have been cited in full or otherwise acknowledged by means of complete references. No portion of this work has ever been submitted as part of another degree at this university or any other university.



OLUWAKEMI B. AJAYI

15th AUGUST 2022

DATE

DEDICATION

I dedicate this PhD thesis to my darling husband, my better half

ADEBOLA GANIYU ADESINA

and my beautiful, lovely daughters

ADERONKE PRECIOUS, ADERINSOLA PEARL AND ADEROMOLA PRUDENCE ADESINA

I appreciate you being my rock during this trying time. Without your encouragement and persistent tolerance with me, I would not have been able to earn this degree.

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"And to know the love of Christ, which passeth knowledge, that ye might be filled with all the fullness of God, now unto Him that is able to do exceeding abundantly above all that we ask or think, according to the power that worketh in us."

(Ephesians 3:19-20)

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LIST OF ABBREVIATIONS

ANOVA: Analysis of Variance

BFPI: Big Five Personality Inventory

CDMQ : Career Decision-Making Questionnaire

CFI : Comparative Fit Indices

CIQ : Career Interest Questionnaire

CMB: Common method bias

EST: Ecological Systems Theory

FET: Further Education and Training

GDE: Gauteng Department of Education

GDP: Gross Domestic Product

H0: Null Hypothesis

H1: Alternative Hypothesis

KMO: Kaiser Meyer-Olkin

LCS: Locus of Control Scale

LO: Life Orientation

NNFI: Normed and Non-normed Fit Indices

PIQ : Parental Influence Questionnaire

PIQ : Peer Influence Questionnaire

RMR: Root Mean Square residual

RMSEA: Root Mean Square Error of Approximation

SCT: Social Cognitive Theory

SD: Standard Deviations

SEM: Structural Equation Modelling

SES: Self-Efficacy Scale

SPSS: Statistical Package for Social Sciences

VIF: Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Career development is an essential feature of human development and it is regarded as an important component of psychological and social development (Baglama & Uzunboylu, 2017). A career is defined as a mixture and combination of work functions that a person encounters during their lifespan (Super, 1980). Therefore, career choice entails the beginning of a particular occupation or profession while career development involves every action carried out in the process of career decision-making (Baruch, Szucs & Gunz, 2015). Career decision-making is a developmental process that includes person's roles prior to the beginning of a profession and after retirement. Consideration is given to career decision-making as a life-long process that requires individual strength and attention in a lifetime (Eryilmaz & Mutlu, 2017). Wang and Wanberg (2017) contend that career decision-making plays a significant role in an individual's life; and consequently, a career is a decisive component that shapes an individual's daily pursuit, their standard of living as well as social aspects of their lives. Therefore, career decision-making is one of the significant decisions that an individual makes in their lifetime. This study hence intends to investigate the relationship between the psychological and social factors with regards to career decision-making among Grade 12 learners in six township Secondary Schools in Gauteng, South Africa. This study helped develop a unified psychological and social model of influences on career decision making that could assist learners to decide on the career path that they propose to follow, after Grade 12. Moreover, the study has led to the development of an 8-stage career decision making model that could be used to assist learners in Secondary Schools.

There are various factors that may influence career decision-making and the future prospects of an individual. Two of these factors are Psychological and Social (Maree, 2016). The psychological aspect is related to a person's personality that may limit or improve how an individual thinks or reasons. This also performs an essential role in obtaining or altering performance (Aminu & Timothy, 2014). In the present study, psychological factors that were investigated include: first, personality types; second, locus of control; third, self-efficacy; fourth, self-esteem; fifth, psychological identity; and lastly, career interest (Owen, 2011). Social factors are closely linked to an individual's relationships which are distinctive features to an individual's background and

may be home or school related (Bojuwoye & Mbanjwa, 2014). The current study also investigated both home (family) and school related social factors as predictors of career decision making among learners. Home related social factors are those aspects of human life which are intimately linked to family. These include; influence of older siblings, parental level of education, parental occupation and family income. School related social factors pertain to individual relationship at school and the school climate. These factors include; peer influence, teachers influence and career information services (Maree, 2016). These factors deal with individual competence expectation, which involves principles of achieving a particular result and conduct (Bandura, 1986). Career decision-making may be linked to experiences, acquired knowledge and skills, as well as expectations for educational achievement in the future. However, individuals with high purpose have a propensity to develop the self-efficacy beliefs and confidence to accomplish their purpose in life (Wang & Wanberg, 2017).

Social factors play a significant role in career decision-making since they are closely linked to individuals' relationships which may include parents, family and other features. Although learners may have the ambition to pursue a desired career, parents play an important role in their children's choice of career as Hewit (2010) points out. Hewit (2010) adds that children are profoundly inclined towards careers that their parents hold in high esteem. Alternately, the choice of a career could depend upon the academic achievement or financial background of an individual. Many learners are unsure of what career to pursue and invariably choose a career that is not suitable. Alternately, they are influenced by friends to choose inappropriate careers (Olamide & Olawaiye, 2013). However, some individuals choose careers based upon their enthusiasm irrespective of financial gains and prospective benefits (Olamide & Olawaiye, 2013). Consequently, career decision-making is a significant determinant of a future standard of living and the quality of life is dependent upon making the correct career decision (Hewit, 2010).

Furthermore, career decision-making may be influenced by social factors such as parents, peers, friends, relatives, role models and teachers especially career counsellors (Edwards & Quinter, 2011). In addition, the influence on career decision-making may be based on the successes that learners perceive in the society in which they reside, whether an affluent or disadvantaged community (Pummel, Harwood & Lavallee, 2008). Choosing a career is one of the major decisions that learners have to make in their lives. Consequently, this requires a number of factors which

need to be taken into consideration prior to making a final decision, such as psychological and social factors (Stead & Watson, 2016).

South Africa is predominantly driven by personal needs and not the needs of the populace, which is the center of African traditions (Maree & Van der Westhuizen, 2011). South Africa still has a high inequality index (Statistics South Africa [Stats SA], 2018) with minute segments of the population extremely wealthy, while large segments live in abject poverty. This condition persists due to low completion rates in higher education, high unemployment rates, and rising crime rates. There are reports of inadequate accomplishment in higher education, with about 55% of enrolled students failing to graduate. Moreover, less than 5% of African and Coloured[1] learners from township Secondary Schools fail to graduate from Higher Education Institutions (HEIs) (Lombard, 2020). The situation is aggravated as almost 50% more white than black students are graduating (Stats SA, 2018). Additionally, about 80% of the students in South African HEIs change their major courses in their first year at least three times (Department of Higher Education [DoHE], 2012). The high rate of change in careers among South African students in HEIs could be an indication of poor or inappropriate career choices as a result of incorrect subject selection at Grade 10. It may be argued that this problem of inappropriate career choices is mostly experienced by learners from township Secondary Schools because they lack adequate career guidance and counseling from professional counsellors towards subject selection and career paths. Consequently, the onus is upon the Government and the Education Department to ensure that learners are assisted in Grade 10 during subject selection to pursue careers that would be advantageous to them as well as the country. With reference to the above information, there is a need for appropriate career decision-making models for learners in township Secondary Schools to enable them to make the right career decisions.

The conventional approach to career decision-making requires a deep knowledge and proper understanding of the world of work in an age when occupational guidance is significant to a decision about a job for life, mostly at school leaving age (Aminu & Timothy, 2014). Certainly,

[1] As defined by the South African government from 1950 to 1991, a person who has mixed European ("white") and African ("black") or Asian heritage is referred to as coloured, formerly known as a Cape Coloured.

knowledge about the world of work is imperative in order to implement career decisions at this period guarantees that career counselling and guidance is basically viewed as an independent, cognitive, problem-solving procedure. Understanding one's personality and understanding the world of work is considered to produce sound career decisions (Shahzad, Zahra & Ahmed, 2014). However, the world of work revolution has transformed individual understanding of a career and career development in this present day and age. While the components of the systems that influences an individual's career behaviour are similar, their personality and their significance to the individual's career behaviour at different times in life, varies (Shahzad, et al., 2014).

The need for strengthening South African learners' subject choices was one of the recommendations from the Third International Mathematics and Science Study, which was published in 2015 where South Africa was positioned last (Reddy et al., 2016). The South African Department of Education views the involvement of the school and parents in learners' subject choices at Secondary School as crucial and therefore recommends that more research be conducted on the factors that influence learners' subject choices and ultimately career decision-making (Department of Education (DoE), 2012). Enache and Matei (2017) highlight the importance of organised activities between the Government, parents and schools to provide learners with the required resources and an environment that supports and motivates learners towards making the correct career choice.

Career decision-making is an important task that requires an individual's thorough knowledge of happenings in their environment and the nation's economy. In South Africa, it may be assumed that many learners in township schools do not have sufficient information concerning career options. Therefore, the choices that they make are entrenched in their perception of the perfect occupation, the subjects they select at Grade 10 as well as the influences around them which are related to psychological or social factors. As a result of the perceived need and demand for an area of proficiency in the workplace, deciding on a career for Grade 12 learners is not a simple and straight forward undertaking. Career decision-making is intimidating for most secondary school learners (Kunnen, 2013). Moreover, it is a complex and overwhelming mission for Grade 12 learners in township schools because of inadequate guidance to support them in their career decision-making process. It is paramount that Grade 12 learners make the right career choice as

this is necessary for their future growth and developments. Nyarko-Sampson (2013) affirms that it is imperative for learners to make the appropriate career choice as this will create more balance, stability and capability with a pleasing future. As a consequence of making the right career decision, the society benefit and will have a unique opportunity for growth and development to improve the economy. Unfortunately, career decisions are made with slight consciousness of the real world of work (Edwards & Quinter, 2011) and this raises the query, "why is career guidance not offered at school?" Learners make fundamental decisions at a time when they might not be well-versed regarding their available choices, or inevitable situations may inhibit them from achieving their desired goals. Consequently, career guidance could be beneficial in guiding them to make precise decisions that may lead them towards their anticipated goals. This is expressed by Jones et al. (2008, p. 11) as follows:

> "The challenge is that young people are forced to make course decisions when they may have very little information about, or experience of, different fields or careers. This is intensified for the rural student, who often has even less access to resources and information. While a few students reported that the career guidance offered at their schools had been good, a repeated refrain from many others was that there had been no, or very inadequate, career guidance at their schools".

If learners receive adequate guidance and support before career decisions are made at Grade 12, they may have the satisfaction and the desired fulfillment, which could enable them to become contributors to the necessary development in their communities and growth of the country. Hasse (2011) adds that learners' attitude and performance may be influenced by factors that inspire their interest to be put into practice and this could have a direct influence on their career decisions. Kusumawati (2013) states that education institutions have an important role to play in the development of learners' abilities to decide upon the right career to pursue. Therefore, it is imperative that career guidance be available at schools to support learners' distinctive requirements.

Interest in a profession is essential in decision-making prior to choosing a career, as lack of interest or being coerced into a career may generate a lack of confidence and self-worth. Making the wrong career decision may lead to subsequent disappointment, unfulfilled and feeling worthless in a chosen career. A major challenge confronting most Grade 10 learners is the complexity of selecting the correct subject combination that a learner has the opportunity to make a successful outcome in Grade 12 for his or her future career path. Learners were given the responsibility towards personal

self- fulfillment, to choose their subjects as a means for establishing a foundation for their future careers. Therefore, it is important for learners to possess adequate information and knowledge of requirements for various career fields of their interest as well as their strength and limitation during their educational journey to reach their set goals. The difficulties that learners encounter from many aspects that could affect their decision-making on the subject they want to pursue for their future employment put pressure on them during the subject selection stage (Sarwar & Azmat, 2013).

The pressures during the subject selection period emanates from the difficulties they face from various factors that could influence their decision-making concerning the subject they want to choose for their future careers (Sarwar & Azmat, 2013). Those factors could be: personality types, locus of control, self-efficacy, self-esteem, psychological identity and career interest (psychological factors), which have the tendency to affect individual thinking and reasoning.

Baglama and Uzunboylu (2017) in research conducted in North Cyprus indicate that family, schools and the social edifice influence a person's career decision-making. Economic projections influence career decision-making amongst men, as they focus on the need to provide for their families and meet the household expenses. However, women display more interest in social standards and efficacy while making career decisions (Hossain & Soddique, 2012). Diverse factors such as academic achievement, life scenarios, skills and talents have also been recognised as determining factors of career choice (Hussain, Abbass, Shahzad & Bukhari, 2011). In addition, this study will explore other social factors which have received little attention in literature but that could influence learners' career decision-making such as: influence of older siblings, parental level of education, parental occupation and family income (home/family related social factors). It is believed that some parents have taken over the planning of their children's futures without proper consultation and guidance. They tend to disregard their children's capabilities and interests while focusing on their personal desires. Those factors could also be: peer influence, teachers influence and career information services (school related social factors). Some learners are influenced to select certain subject combinations that are similar to their friends. Likewise, teachers in schools are also instrumental in helping learners make informed decisions concerning their subject choices in Grade 10 towards potential careers and work options. This support might be indirect, such as creating curriculum structures that permit learners with various established options, or direct

support that presents learners with more opportunities through career education, or formally guiding learners one-on-one as they choose their subjects and/or post-secondary school career pathways (Pillay & Thwala, 2012).

In South Africa, learners are required to choose their preferred subjects in Grade10, which may be studied until Grade 12 when the final Secondary School examination is written. However, in the event of a learner not choosing the correct subjects that will enable admission into a university or that could allow the learner to follow an alternate route that reflects the learner's interest and passion at the end of Grade 12, this could impact learner's career decision-making negatively in Grade 12 and beyond (Martinez, Baker & Young, 2017). Universities have specific requirements regarding subjects for each individual qualification and if an applicant does not have the requisite subject; access to the university would be denied. Thus, it calls for the expertise, knowledge, and information of a career counsellor, which are essential.

South African public schools do not offer vocational guidance to Grade 10 to 12 learners who are in the process of making career decisions. Consequently, because there is no vocational guidance offered, learners may be influenced by either psychological or social factors and invariably make the wrong decision. Vocational guidance is important to learners towards choosing subjects that would enable them pursue alternative career paths, because some learners may have interest other than pursuing an academic career. However, there may be some who make the correct decision based on their passions to follow a specific career path.

Post-apartheid South Africa has seen the reorganization of the education system into two different departments, which include the Basic and Higher Education Departments. However, career guidance counsellors are absent in township Secondary Schools, despite Life Orientation being a compulsory subject where career guidance ought to be covered. Evidence shows that in 2013 the positions were reintroduced for a short time and thereafter, abolished without explanation. The absence of career counselling and the harmful effect on career decision-making of Secondary School learners have armoured the depleted economic and social circumstances of the disadvantaged and estranged people in the country.

(Maree, 2016). The drawback is that learners in the township schools do not get the right advice from a qualified career counsellor; instead, they get bad advice from well-meaning people. When

choosing a vocation, learners frequently get the wrong impressions based on the information they receive from non-experts (Maree, 2016; Howard & Walsh, 2011). These learners who pursue higher education but are unsure of their chosen career path may switch between courses or end up doing jobs that are detrimental to their personal growth and, as a result, to their ability to lead successful lives (Martinez et al., 2017).

Following the foregrounding discussion, this study is significant and important because it developed a comprehensive model or framework which would determine the psychological and social factors that influence career decision-making of Secondary School learners, which is the gap missing in other previous studies that were conducted (Chilungamo, et al., 2019; Ochieng, 2015). Having presented the introduction and background to this study, the research problem is discussed next.

1.2 Research problem

The South African education system is in a transitional stage of correcting the divergence created in the educational system by the past regime. During this transitional process, all learners in South African Secondary Schools are expected to experience quality and equal education that encourages a basis for career development. Presently township learners in South African Secondary Schools are making career decisions in a dwindling economy where unemployment is escalating and affirmative action strategies that aspire to redirect previous inequalities concerning employment opportunities to allow equity in the system is quivering (Karlsson & Moberg, 2013). South Africa's bequest of under resourced schools and less qualified teachers, particularly in previously disadvantaged black and rural communities, indicates that the capabilities associated with self-determination in the learning process and independent learning are not adequately addressed in schools (Jones, et al., 2008). Amongst the disadvantaged communities, work-related injustice and job deprivations are happening on a regular basis. According to Watson, McMahon, Foxcroft and Els (2010) black South Africans form 79.2% of the South African population, up until now less than 8% of South African career development research studies concentrate on the disadvantaged groups. It is vital to conduct research with this disadvantaged population especially in the area of career decision-making among young adults so that progress in career development and academic

success may be achieved. Hence, this study focused on quintile 1 and 2 (non- fee-paying schools) township Secondary Schools.

Psychological and social factors may obstruct learners in Secondary Schools to advance in career development. However, the existing literature examining career decision-making among Secondary School learners has predominantly been paying attention to the application of either psychological factors or social factors independently without considering a comprehensive model or framework (Chilungamo, et al., 2019; Ochieng, 2015). Moreover, there is a dearth of literature in South African context in relation to research on career decision-making among learners. In addition, from examined literature, no study has adopted a combined approach for both psychological and social factors in career decision-making leading to the development of a model of career decision-making that could be used in schools. Therefore, this study attempted to investigate the relationship between the psychological and social (psycho-social) factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng; South Africa.

It is believed that psychological and social factors may play an essential role in career decision-making among learners. Individuals in their own capacity should make career decisions that reflect their personality and interest (Bani-Khaled, 2014). Buthelezi, Alexander, and Seabi's (2009) research indicate that in most township schools, learners choose their subjects without any assistance or guidance from a career counsellor, which may lead to problems in their future career decision-making. The complexity of career decision at Secondary School level requires expert knowledge of career guidance and a counsellor in various spheres prior to making such a life changing decision (Baruch, Szucs & Gunz, 2015). There are numerous advantages (which are discussed in chapter two) of career guidance over and above learners' personal conclusion on a career path without the guidance of a career counsellor in such a significant aspect of a learner's growth and development (Alemu, 2013). Psychological and social factors function in the active relations of career decision-making among learners (Baglama & Uzunboylu, 2017). The rationale for the study emanates from the research problem and is discussed next.

1.3 Rationale for the study

Studies have shown that learners in township Secondary Schools have a number of factors that influence and affect their career decision-making as a result of their environment (Wang & Wanberg, 2017; Karlsson & Moberg, 2013). These factors are considered to be both psychological and social and play an important role in learners' choices because consideration is given to some of these factors before making a career decision that affects their lives in the future, either positively or otherwise. In the face of economic imbalance and uneven economic status where unemployment grows by the day, it is therefore, prudent to make a wise career decision that could safeguard one's future.

Career counseling in South African township schools was compromised by the apartheid philosophy which resulted in inadequate resources for these schools as well as a lack of proper training of teachers regarding school guidance and counselling (Subbaye & Dhunpath, 2016). The improvised implementation of career guidance and counselling in township schools has led to career indecision and subsequently disenchantment among many first-year university students (DHET, 2015). Buthelezi et al., (2009) state that this lack of adequate guidance in Secondary School has led to a career shift among university first year students, where most students in their first year continually change their courses.

According to statistics, South Africa's current unemployment rate is 32.5% (Statistics SA, 2020), which is of great concern to both the government and layman. The youth aged 15 to 24 years in the South African labour market is the most susceptible as the unemployment rate in this group was 55.2% in the first quarter of 2019 (Statistics SA, 2020). According to Statistics South Africa, youth in the above-mentioned age group was 31% in 2018, in comparison with 19.5% in the first quarter of 2017.

With reference to the above information, career decision-making has become a multifaceted issue due to job competition. There is an opportunity for an ordinary person to be more affluent provided that the individual has the appropriate skills and knowledge (Wang & Wanberg, 2017). Currently, it is not only important to plan appropriately for future careers but to also conduct an extensive career exploration before making a career decision in order to adapt to the emergent socio-

economic situations (Kunnen, 2013). This is of serious concern and has prompted me to conduct an investigation in what could be the influencing factors regarding the career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East District, Gauteng South Africa. I explored and also determined the psychological and social (psycho-social) factors influencing career decision-making of Grade 12 learners in township Secondary Schools in our country.

Most importantly, this study is quite significant because the findings have resulted in the creation of an eight-stage career decision-making model (presented in the last chapter) that could be utilized by teacher counsellors in Secondary Schools. The findings from this study are expected to lead to the development of approaches that would allow young adults to make sound career decisions. The outcome of this study may also have significant improvements for educational institutions and may aid them to facilitate chances for learners' careers and assistance for learners in achieving career success after leaving secondary schools. Additionally, the findings from this thesis will contribute to the body of knowledge and to the practice of school counsellors in South Africa, as well as assisting Grade 12 learners in making the best career decisions for their future endeavours.

1.4 Aim and objectives of the study

The aim of this study was to ascertain the relationship between psychological and social factors and career decision making of Grade 12 learners in township Secondary Schools. In order to accomplish the aim of the study as stated, it is important to formulate objectives, which are presented next.

The following objectives assisted in accomplishing the aim of this study:

- To examine the relationships between psychological factors (personality types, locus of control, self-efficacy, self-esteem, psychological identity and career interest) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa.
- To determine the relationships between social factors (influence of older siblings, parental level of education, parental occupation, family income, peer influence, teachers influence and career information services) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa.

- To determine the relationships between demographic factors (gender and age) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa.
- To investigate the challenges faced by learners in their career decision-making process.
- To develop a structural equation modelling that can explain the relationship between psychological and social factors and career decision-making.

1.5. Research hypotheses

Since this study is intended as a mixed method design, it is important to formulate hypotheses that will be tested to determine the quantitative aspect of this study. As a result of the proposed model, which intends to describe the frame of the relationships between psychological and social factors as they influence learners' career choice decision-making in township Secondary Schools in Ekurhuleni East district, Gauteng. The hypotheses, for this study, were generated based on the aim and objectives of this study. This study tested both null and alternative hypotheses as follows:

- There is no significant relationship between gender and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is a significant difference between age and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is no significant relationship between personality types and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is no significant relationship between locus of control and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is no significant relationship between self-efficacy and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is no significant relationship between career interest and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is no significant relationship between self-esteem and decision-making of Grade 12 learners in Township Secondary Schools.
- There is no significant relationship between psychological identity and decision-making of Grade 12 learners in Township Secondary Schools.

- There is no significant relationship between influence of older siblings and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is a significant relationship between parental level of education and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is no significant relationship between parental occupation and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is a significant relationship between family income and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is no significant relationship between peer influence and career decision-making of Grade12 learners in Township Secondary Schools.
- There is no significant relationship between teachers influence and career decision-making of Grade 12 learners in Township Secondary Schools.
- There is a significant relationship between career information services and career decision-making of Grade 12 learners in Township Secondary Schools.

1.6 Research questions

The main research question for this study was:

What is the relationship between psycho-social factors and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East District Gauteng, South Africa?

In order to respond to the main research question, the following supporting questions were used:

i. What is the relationship between psychological factors (personality types, locus of control, self-efficacy, self-esteem, psychological identity and career interest) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa?

ii. What is the relationship between social factors (influence of older siblings, parental level of education, parental occupation, family income, peer influence, teachers influence and career information services) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa?

iii. What is the relationship between demographic factors (Gender and age) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa?

iv. What are the challenges facing Grade 12 learners in their career decision-making process?

v. What structural equation modelling can explain the relationship between psychological, social factors and career decision-making?

1.7 Overview of the research design and methodology

To completely address the research problem, the researcher used a mixed methods approach for data collection and analysis. Since both kinds of methods complement one another, a combination of quantitative and qualitative methods was used in a single study (Creswell & Plano Clark, 2018). In the quantitative phase, the researcher examined the psycho-social factors influencing career decision-making of Grade 12 learners in township secondary schools in South Africa. During the qualitative phase, which generally concerned the inquiry process, the researcher reported detailed views of the study in the natural setting of the participants in order to explore psycho-social factors influencing career decision-making among participants.

Although combining quantitative and qualitative research methods is advantageous, Chapter 4 goes into more depth about how to do this. It has been recognised that using a mixed methods approach is useful for a number of reasons, including the completeness of the data, complementarity, and triangulation or better validity (Creswell, Plano Clark, Gutmann & Hanson, 2003). In the current study, both quantitative and qualitative methods were useful for identifying the psycho-social influences on career decision-making among Grade 12 learners, especially those in underprivileged areas.

1.7.1 Research design in mixed methods

This study adopted a mixed-methods approach with an explanatory triangulation design, both of which were discussed in chapter 4 in greater depth. The triangulation design, a one-segment design, enables researchers to apply both quantitative and qualitative methodologies with equal efficiency and impact. Concurrent triangulation is the name given to this architecture since only one phase of time is needed for data collection (Creswell, Plano Clark, Gutmann & Hanson, 2003). This approach requires the concurrent but independent collection and analysis of both quantitative and qualitative data for the researcher's better comprehension of the research problem. The

researcher makes an effort to combine the two types of data, either by interpreting the independent findings jointly or by transforming data to help the two kinds of data during the analysis process.

Two data collection steps are included in the concurrent triangulation technique; one stage should not take precedence over the other but should instead be either concurrent or sequential. Data may be merged during the interpretation stage (Bentahar & Cameron, 2015). This data combination could occur throughout the analysis process since the data interpretation could lead to an absence convergence or, conversely, could support knowledge assertions (Creswell & Plano Clark, 2018). The advantage of a concurrent triangulation strategy over a sequential method is the ability to use both quantitative and qualitative methods, which is one of the benefits that researchers recognise when using a constrained data collection time. The drawback, though, is that it takes a lot of effort and talent to study a subject using two different approaches (Schoonenboom & Johnson, 2017).

1.7.2 Data collection in mixed-methods research

In order to gather the necessary data for this study, questionnaires and online interviews (using Zoom/WhatsApp) were used. Numerous validated scales (the Big Five Personality Inventory, the General Self-Efficacy Scale, the Career Interest Scale, the Locus of Control Questionnaire, the Peer Influence Scale, the Teacher Influence Scale, the Influence of Older Siblings Scale, the Rosenberg Self-Esteem Scale, the Psychological Identity Scale, and the Career Decision-Making Questionnaire) were used to collect the quantitative data. To identify some of the psychological and social aspects that affect learners' career decisions, each scale featured items with varying Likert scale response options. Psychological factors, social factors, and career choice making were among the components that questionnaires were used to examine. The participants were selected using purposive and convenience sampling method. The selected Grade 12 learners who agreed to participate in online interviews about the factors they felt influenced their decision to pursue a career after Grade 12 were used to gather qualitative data. The researcher explained to the participants the importance of their contribution to the understanding of this research and the implications of taking part in this study. For this study, each participant was chosen based on established criteria. Participants were given individual and parental consent forms to obtain permission from their parents or legal guardians (See Appendix B, C, D, E, F, G, H and I). Semi-structured interviews were used to gather qualitative data in order to encourage participant

involvement and allow them to freely and fully describe their life experiences. The study's participants were made fully aware of the study's voluntary nature and their right to withdraw at any time without suffering any negative consequences. Additionally, because participants and the schools were given pseudonyms, the participants' identities and confidentiality were ensured.

1.7.3 Data analysis and interpretation in mixed methods research

Different kinds of analysis were performed, and quantitative and qualitative data were assessed and interpreted individually. The researcher began with quantitative analyses before moving on to qualitative studies, which were then integration of mixed methods. Initial quantitative data analysis, testing of statistical hypotheses, descriptive statistics analyses, and inferential analyses were the three stages of quantitative analysis. As a follow-up to quantitative analysis, qualitative analyses involved thematic content analysis, which involved familiarising oneself with the data, data coding, topic identification, identifying and naming themes and sub-themes, and presenting the results of the analysis. Using this strategy, the researcher interpreted the data in light of how participants saw the circumstances, noting trends, themes, categories, and regularities. Making sense of the outcomes or findings constitutes data interpretation in mixed methods research. While qualitative research offers similar, albeit slightly different, explanations for the outcomes, quantitative research compares the findings to the original research questions to ascertain how the question or hypotheses were answered in the study. In the current study, qualitative research focused on defining ideas, outlining the scope and makeup of phenomena, developing typologies, identifying connections with the data, and offering justification or formulating plans. The researcher connected the study's quantitative and qualitative results through interpretation and drew conclusions and implications.

1.8 Overview of the theoretical framework for this study

The Career Development Theory, which is explored by a variety of theorists with differing viewpoints on career development theories, served as the theoretical foundation for this study. The psychological and social perspectives on career choice and development are informed by the theoretical approaches to career decision-making (Eryilmaz & Mutlu, 2017). There are a number of career development theories, however for the purposes of this study, Bandura’s Social Cognitive Theory was focused on in order to analyse the psychological foundations of career decision-

making (Bandura, 1977). The social influences on career choice were then examined, with a focus on Bronfenbrenner's Ecological System Theory (1979).

1.9 Delimitation of the study

This study was conducted in Ekurhuleni East District in Gauteng province South Africa only, and it explored the psycho-social factors influencing learners' career decision-making. The focus of the study was on Grade 12 learners in township schools of six selected Secondary Schools. Data were collected using a number of authenticated scales for the quantitative component with the Likert scale responses adopted in the survey for data collection. In addition, semi-structured online (Zoom/WhatsApp) interviews were conducted with selected Grade 12 learners. The meaning of key terms employed in this study is discussed next.

1.10 Description of key terms for the study

It is important to attend to the meaning of the key terms as applied in this study. Consequently, operational definitions are proffered for the purpose of elucidation, to avoid vagueness and for readers to be familiar with how these key terms were used in this study.

1.10.1 Career

Career is defined as a mixture and combination of work functions that a person encounters during their lifespan (Super, 1980). A career choice entails the beginning of a particular occupation or profession (Baruch, et al., 2015). In this study, a career is defined as the learner's ambition on what they would wish to become in future after school.

1.10.2 Decision-making

Fan (2016) describes decision-making as a method of evaluating the advantages and disadvantages, risks and benefits as well as the identified and unidentified choices. Decision-making entails various procedures that are all in-between contemplation and action which are the antecedents to performance and conduct (Talley, 2011). Consequently, it is the method of reducing the space between the available condition and the preferred situation by resolving challenges and taking advantage of available opportunities (Patton & McMahon, 2014). Relating to this study, decision-making involves learners' choosing options from available alternatives regarding what they would wish to become in life.

1.10.3 Career Decision-making

Career decision-making refers to a choice of occupation, school or education programme (Baglama & Uzunboylu, 2017). Therefore, a career decision involves the self-confidence enacted while making effectual career decisions and producing optimistic results that relate to career development functions. These functions entail capabilities concerning precise self-evaluation, gathering information regarding career, problem-solving, and ambition (Eryilmaz & Mutlu, 2017). In this study, career decision-making is the process that learners in school follow to carefully select their desired careers that they would wish to pursue after school.

1.10.4 Psychological factors

These are the components of an individual's personality that sets boundaries or improves the ways individuals think or reason (Baglama & Uzunboylu, 2017). An irrational or uncontainable fear may limit or even constrain the ways individuals think or respond to issues (Stead & Watson, 2016). In this study, psychological factors are regarded as internal factors within an individual that makes them see themselves as capable or not capable of accomplishing certain tasks. Some of the psychological factors that were investigated include: personality types, self-efficacy, locus of control, self-esteem, psychological identity and career interest.

1.10.5 Social factors

These are realities and experiences that influence individuals' behaviour, thoughts and lifestyles (Wang & Wanberg, 2017). These are variables that emanate from culture, family, environment, religion, language, environment and the media and influence a person to think and behave in a specific manner (Karlsson & Moberg, 2013). In this study social factors refer to those aspects from home or school environments which could influence learners in their career decision-making process such as older siblings, parental level of education and occupation, family income, peer influence, teachers' influence and career information services.

1.10.6 Secondary School Education

The level following elementary school education and preceding higher education is secondary school education. South Africa's Secondary School system runs from Grade 8 through Grade 12. There are five main groups of Secondary Schools in the South African Basic Education system,

which ranges from quintile 1 to 5. These schools are classified thus as a result of the surrounding communities in which the school is located. Some township schools fall into quintile 1 and 2 because of the disadvantaged communities in which these schools are situated. This study focused on township Secondary Schools under quintile 1 and 2 classifications.

1.10.7 Grade 12 learners

According to the South African Basic Education system, Secondary School education is categorised into two phases; General Education and Training phase (GET) and Further Education and Training phase (FET). The GET phase begins from Grade 7 to 9 while the FET phase starts from Grade 10 to 12. In this study Grade 12 learners are those individuals who are at the final stage of their Secondary School education. This is classified at level four on the National Qualifications Framework (NQF) as described by the South African Qualifications Authority (SAQA), Act 1995 (Act No. 58 of 1995).

1.10.8 Township in South Africa

In South Africa, the word "township" and "location" can be used interchangeably, which are a legacy of the Apartheid dispensation. In addition, it denotes the under-developed, ethnically isolated cities from the late 19thcentury until the last part of Apartheid in 20th century. These areas were set aside explicitly for Indians, Coloureds and blacks. Townships were typically constructed on the outside-edge of towns and cities (Ramnarain, 2016).

1.10.9 Township Secondary Schools

Townships Secondary Schools are schools within South Africa that are mostly located on the outside-edge of towns and cities. The schools are mostly surrounded by disadvantaged communities and most learners are from middle to low income earning families (Maree & Beck, 2004). In this study, a township Secondary School refers to a school in the deprived communities that are designated as quintile 1 and 2 by the South African government.

1.11 Thesis Layout

This section presents the layout of chapters for this study.

Chapter One: ***Introduction***

A broad summary and overview of this study are provided in this chapter. The context, assumptions, statement of the research problem, purpose and goals of the study, as well as the research questions and research hypotheses were all provided in this chapter. Additionally, the study's major terms were presented.

Chapter Two: ***Review of the literature***

The chapter analysed pertinent literature related to the study and provided an overview of both international and national literature that focuses on the psychological and social factors influencing Grade 12 learners' career decisions. In addition, the chapter also presented literature on the demographic factors (age and gender) influencing learners as well as challenges faced by learners in their career decision-making process. The gaps that emanate from the reviewed literature are also discussed.

Chapter Three: ***Theoretical framework for the study***

This chapter provided an overview of the theoretical underpinnings of this study. The theoretical framework critically discussed the two theories appropriate for this study. The psychological and social factors influencing learners' career decision-making explained using career development theories.

Chapter Four: ***Research design and methodology***

The methodological underpinnings for this study were discussed here. This study employed the mixed methods research design, with the quantitative and qualitative methods adopted concurrently. In addition, this chapter presented information regarding the sampling procedures, sample size, data collection instruments, validity and reliability of research instruments and procedures followed by analysis of data in mixed methods research. In conclusion, the ethical considerations for this study were discussed.

Chapter Five: ***Quantitative results***

This chapter integrated the presentation and discussion of the quantitative research findings of this study. Quantitative analysis of the questionnaire and data collected were dealt with in this chapter.

Chapter Six: ***Qualitative results***

This chapter presented the qualitative research findings for this study. Qualitative case studies of selected schools for psycho-social factors influencing learners' career decision-making were provided. The findings from this section complement and expand on the findings from the quantitative data.

Chapter Seven: ***Summary of Findings, Discussions, conclusion and recommendations***

This chapter presents a section on summary of study findings of both the quantitative and the results of the qualitative phase of this study. Secondly, the conclusion was presented in line with the major findings of this study and lastly, recommendations for different aspects concerning psycho-social factors influencing learner's career decision-making in township Secondary Schools, as well as the limitations of the study and suggestions for further research were provided.

1.12 Conclusion of the Chapter

This chapter provided an introduction to the study which include background, rationale, aims and objectives of the study. Thereafter, the research questions and research hypotheses, which are formulated, were outlined, followed by definitions of key terms as used in the study. Lastly, as a conclusion to the chapter, a breakdown of the remaining chapters is elucidated.

The next chapter, chapter two presents the review of literature for the study.

CHAPTER TWO

REVIEW OF THE LITERATURE

2.1 Introduction

This chapter presents the review of pertinent literature that relates to the psychological and social factors influencing the career decision-making of Grade 12 learners in selected township Secondary Schools in Gauteng, South Africa. This aspect of the review is on empirical studies regarding the world of work in the 21st century, factors that could influence learners' career decision-making and challenges in career decision-making. The review examined empirical relevant literature from the international, national and local South African perspectives. In addition, this chapter identified research gaps that emanated from the reviewed studies.

The following section discusses the world of work in the twenty-first century, demonstrating how changes in the employment world have made it difficult for learners to make career decisions.

2.2 The world of work in the 21st century

In the past, an individual choosing a job could anticipate to continue the job until retirement. However, in the recent past, men and women who are employed try to stay in their occupation for as long as they can. Employments in sectors which are formerly regarded as steady, for example, manufacturing and automobile, now have different status with the introduction of computers and robotics (Blustein, 2013). Many occupations have gone into extinction, such as, Postal service workers and Assemblers, leaving most employees unskilled, untrained and unqualified for employment in another field (Fouad, Cotter, Carter, Bernfeld, & Liu, 2011). Regrettably, the world of work is transforming swiftly that most jobs that are available now would soon go to extinction for example, Bank tellers, Executive Secretaries and administrative assistants and occupations not yet imagined could be developed, such as Robotic waitering (Blustein, 2013).

The drastic change in the job market in the 21st century has created difficulties for learners in making career decisions. In particular, it has become a challenge for education and career development, which has developed in different taxonomies from career education to career guidance to career counselling. Irrespective of the name, the focal point remains unchanged, which

is to prepare learners for career decisions and be successful in a chosen career (Hees, Rottinghaus, Briddick & Conrath, 2012).

Back in the day, career development was centred principally on the development of occupational skills, but this has shifted because presently, career preparation has developed into a more logical method of preparedness. Instead of getting ready for particular jobs that might not be there nor available when required, learners are encouraged to discover a new method of adapting to the changing world (Watson & McMahon, 2012). Consequently, learners need to learn basic skills from secondary school, which could assist them to make better career decisions. Additionally, learners must be responsive to the development in education and come to terms with decision-making in the current world of work (Watson & McMahon, 2012).

Toffler (1980) envisioned the information era as the "third wave" which will usher in fresh career anticipations. In addition, potential employees should be inventive, creative, educated, and resourceful individuals who can create personal business and become employers of labour (Toffler, 1980). The recent economy depends on information sharing that entails human relations skills, which is not limited to cognitive aptitude. Individuals with special ability will be required to educate and train employees, who are compassionate and creative to develop receptive managers who will be in demand in the current world of work. These newly trained employees will develop innovative techniques and facilitate establishment of new principles (Janah, 2015).

Generally, transformations in the world economy, scientific innovations and wavering employment patterns have hugely influenced the world of work globally (Savickas, 2011). Life-long careers and linear emergent portability have become obsolete. Alternatively, provisional obligations and contractual employment have become the custom in the present-day employment (Richardson, 2012). Career decision-making process is being revisited all through the life time by individuals who have part-time job or those that are self-employed (Richardson, 2012). Nkoane and Alexander (2010) affirm that the logical-scientific methods that formerly informed career decisions has been substituted by the perception that career certainties are developed personally. Individual variations in career decision-making processes are basically evident in disadvantaged communities, such as that of South Africa's townships (Maree, 2011).

2.2.1 The missing puzzle piece in career decision-making

The reality is that the world of work is transforming rapidly and in an unpredicted manner. This remark is definitely apparent in the discussion above; the effect of the transformations is complex with the increasing acceptance that the "imposing vocation description" is ended for a growing percentage of employees all over the world (Stead & Perry, 2012). It appears that an individual requires adequate training, guidance and vastly inspired to handle their vocational lives in a circumstance of constant change and for a lot of people, a situation of latent possibilities (Janah, 2015). Furthermore, the issue of career decision-making will remain complicated. We now live in a time when secondary school learners have a greater variety of vocations to choose from. The world is always changing, and science and technology's horizons of knowledge are expanding. Because choosing a career is such an important component of one's life, it is regarded as a difficult procedure (Jedidah & Duffy, 2012).

Individuals need to consider a multifaceted approach where preferences grow and diminish according to economic situations, accessibility of resources, individual abilities, availability in the labour market, social and psychological factors. Given the concern about increased volatility in unemployment and poverty, it would be necessary to develop a plan for how individuals will manage their vocational lives and obtain support for workplace challenges (The Economist Intelligence Unit, 2015).

As the traditional dialogues of career development, career guidance and counselling are pertinent to many learners, there is need for fresh thoughts and solutions to the challenges that learners experience when making career decisions. Possibly one of the difficult tasks is how career counsellors and psychologists can assist learners develop versatile and adaptable sets of abilities that they will require to subsist and thrive in the present world of work (Richardson, 2012). To succeed in the new world of work, many researchers affirmed that, it requires self-determination, a social world that asserts and develops opportunities for self-esteem and self-respect (Hartung, & Subich, 2011; Blustein, Medvide, & Wan, 2012). Consequently, as career guidance and counselling will still be beneficial to many learners, new interventions will be required to further assist learners in making better career decisions that will be adequate for the transformed world of work.

In view of the transformations that have initiated a change from traditional careers, it has become more demanding for an individual to make career decision on ways to deal with their chosen career and live a balanced life (Raphulu, 2018). An individual innovative way of thinking will bring a complete change to traditional careers, highlighting individual independence and self-sufficiency (Morton, 2017). Due to the workplace's rapid transformation, young adults must be certain of their career choices because a lot of work place responsibilities are gradually depleting, substituted by technology and several other innovative careers are formed (Mtemeri, 2017).

The incoming workforce requires a thorough knowledge of their environment, area of specialization and abilities, equipped with technology. To have the skills to interact with multidisciplinary and versatile groups of individuals to analytically reflect on problem solving techniques while engaging high communication skills and an adaptable understanding (Raphulu, 2018). The labour market in South Africa is exigent for young adults exiting schools, just like any developing country. Making well-versed career decisions is crucial, as this will permit young adults to have better opportunity to pursue a career that will suit their life purpose (Robertson, & El-Agamy, 2017). Learners' career decision-making processes could be influenced by numerous factors, which are discussed next.

2.3 Factors influencing learners career decision-making

It is apparent that there are numerous factors that could influence learners' career choice decision-making process. In this study, psychological and social factors were considered. The psychological factors are those elements of an individual's traits that set limitations or develop the ways an individual thinks or reasons (Baglama & Uzunboylu, 2017). Individual behaviour may depict a plain conversation to be exceptionally complicated or straightforward. An irrational apprehension or uncontainable fear may limit or even restrain the way an individual thinks or responds to issues (Stead & Watson, 2016). Furthermore, it could be regarded as those aspects of human life that contribute or affect decision-making especially with learners in Grade 12 who may be overwhelmed by career decision-making processes. In this study, psychological factors such as personality types, self-efficacy, locus of control, self-esteem, psychological identity and career interests were studied. The social factors are those elements which emerge from culture, family, environment, religion, language, media, which influence a person to think and behave in a specific manner (Karlsson & Moberg, 2013). These may be referred to as those aspects of human life which

can influence individuals in their career decision-making process and could be divided into two main groups: family and school related social factors (Wang & Wanberg, 2017). In this study, social factors such as influence of older siblings, parental level of education, parental occupation, peer influence, teachers influence and career information services were investigated.

2.3.1. Psychological factors

This section presents the psychological factors that are pertinent to this study. For example, personality types, self-efficacy, career interest, locus of control, self-esteem and psychological identity are discussed below.

2.3.1.1 Personality types

Career decision-making may be regarded as one of numerous decisions that secondary school learners will have to make to determine their future career paths. This decision could influence them all through their future endeavours. The fundamental nature of learners' personality will revolve around what they want to achieve in their lives after exiting secondary school. Most learners in Secondary Schools consider their future to be splendid adventures in which they are destined to be successful based on the personality traits that they put up in Secondary Schools among their peers (Li, Guan, Wang, Zhou, Guo, Jiang & Fang, 2015). Personality type is the psychological categorisation of several types of individuals, which at times is differentiated from personality traits with the latter exemplifying a lesser grouping of behavioural propensities (Jemini-Gashi & Bërxulli, 2017). Most learners may believe that with their personality, they would be able to compete for any job opportunity in both the private and public organisations immediately after Secondary School education. Although like many other adolescents, learners in Secondary School sometimes worry about what they will do with their lives and who they will become in the future (Edwards & Quinter, 2011). Individuals' desire towards specific careers varies, some desire high revenue; many want adventure while others want to serve their communities to create a better society. Every learner holds their distinctive history of their personality, which influences how they view the world (Morizot, 2014).

The past formed in fraction by the learner's personality will be determined by how the learner makes career decisions. Therefore, how learners view their personality will determine their career decision-making for the future. An individual's personality in the career decision-making process

may influence the career paths that they decide to follow. According to Morizot (2014), personality plays a significant function in the choice of a career. In addition, it is important for learners to possess the self-motivated personality type in order to explore career possibilities from early stages of their lives, rather than the procrastinating type that delays until they are forced to make a decision. It is important for individuals to have a better knowledge of their personality, to assist them in making the right judgement concerning their career plans (Harry, 2017).

Research has confirmed that many learners are still uninformed not only about their subject combinations that could lead to their desired career (Harry, 2017), but also their personality types that match their career pursuit, as well as the absence of a career guidance counsellor in guiding them towards the right subject combination that could lead to their career path. These may be responsible for the reason why most of the learners opt for prestigious professions without considering their personality types, which results in a mismatch with personality types.

According to Holland (1997) regarding vocational personalities and the work environment, individuals look for environments that support their personality types and become involved in actions that exploit their capabilities. Hence, there is a need for matching personality types with career choices because it influences an individual's life. The understanding of an individual's personality type may enhance an individual's knowledge towards career planning and consequently career decision-making (Liet al., 2015). Holland (1997) arrived at the conclusion that career decision-making may be viewed as a mirror of personality, since career decision-making is successful if it encompasses personality types. Individuals relate with their vocational environments and take pleasure in their environment if it goes along with their personality traits; it is through career that people demonstrate their full potentials and personalities. A study conducted by Chilungamo, Mo and Chinun (2019) in Malawi amongst undergraduate university students reported that personality traits of conscientiousness showed higher correlation than other traits significantly in rational, avoidant and spontaneous decision-making while extroversion, agreeableness and neuroticism personality traits showed non-significant predictive values. The reviewed study carried out in Malawi was conducted among university students who are young adults in their developmental stage, while the present study focused on learners in Secondary School who are predominantly adolescents.

The big five personality traits are important and operate as the building blocks of personality. These factors are denoted by the acronyms OCEAN or CANOE, which is often used to recollect McCrae's and Costa's (2008) five factors, or the Big Five personality traits: "*Openness to Experience*, *Conscientiousness, Extraversion*, *Agreeableness*, and *Neuroticism".* Additionally, these traits assumed that individuals' differences are a result of their genetics and environments (Donnellan & Lucas, 2008). It is imperative to state that the five factors stand for a range of potential personality types. McCrae and Costa (2008) mention that the big five personality traits are comparatively steady over an individual's lifespan, though there is a propensity for the traits to enhance or reduce moderately as an individual develops. Researchers discovered that conscientiousness augments through adolescence to the prime of life, as individuals develop the ability to manage their personal affairs and careers (Terracciano, McCrae, Brant & Costa, 2005; Donnellan & Lucas, 2008). Likewise, agreeableness improves with age, hitting the highest point between 50 and 70 years, while neuroticism and extroversion has the tendency to reduce slightly with age (McCrae & Costa, 2008).

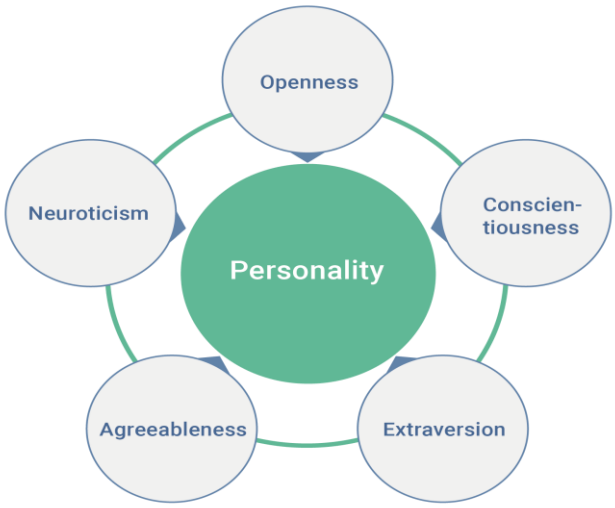


Figure 1: *The big five personality traits* (Soto, 2016 p. 42)

From figure 1, the Big Five personality model presents each and every personality trait in a scope of five factors. Psychologists agreed that human personality types can be condensed to five factors and these factors are suitable to accommodate every other personality type (Marshall, 2015; Gosling et al., 2011). The Big five personality factors demonstrate evenness in personal

accountability, interpretations and a broad range of individuals of different ages and background (John, Robins & Pervin, 2008). According to McCrae and Costa (1992) individuals differ in terms of the traits that they exhibit; such as openness to experience, conscientiousness, extraversion, agreeableness and neuroticism.

Openness to experience: This personality trait shows an individual's level of logical inquisitiveness, inventiveness and inclination for innovation and diversity (Jemini-Gashi & Bërxulli, 2017). It is defined as an individual's preference for a variety of tasks over a strict practice. Openness is completely associated with regular use of social media (Penn, 2016). Openness generally appreciates art, feelings, exploration, strange thoughts, inquisitiveness and different range of experience. Individuals who are amenable to experience are academically inquisitive, and conscious of beauty (Penn, 2016). They have a tendency to be creative and more cautious of their emotions, with regard for exceptional beliefs and willing to try new things. However, an individual may have interest in learning new traditions but does not have any love for art or poetry. The trait is characterized with thoughts in symbols and abstractions, which is detached extremely from actual experience. Individuals who rate high in openness to experience are unique and innovative, while those who rate low desire routine tasks (Jemini-Gashi & Bërxulli, 2017).

Conscientiousness: This trait describes individuals who are coordinated, dependable, and diligent. They have the tendency to demonstrate self-control and to be submissive, and they aim to achieve their purpose no matter the situation. This trait describes individuals, who are coordinated, dependable, and diligent. They have the tendency to demonstrate self-control, submissive and have the aim to achieve their purpose no matter the situation. Conscientiousness is associated with people's behaviour and how they express their feelings and emotions towards other people. Consequently, the trait is perceived as an aspect that controls irrational behaviour in people (Penn, 2016). Therefore, conscientiousness explains the level at which an individual is trustworthy, dependable, determined, relentless and goal-driven (Di Fabio, Palazzeschi, Levin & Gati, 2015). This trait combines individual internal and external thought, which reflect individual's capacity in decision-making. Individuals who score high on this trait demonstrate an attribute towards a planned behaviour instead of acting on impulse (S˘verko & Babarovic´, 2016).

Extraversion: the trait is noticeable for prominent commitment with the external world. Individuals with this trait have the tendency to be enthusiastic and passionate about life. Extroverts take pleasure in interacting with others, they are energetic and enjoy being visible in a group. Individuals with low scores in this trait tend to keep to themselves, have low energy levels, and are more self-determined in their social environment (Kemboi, Kindiki & Misigo, 2016).

Agreeableness: This trait illustrates the extent to which an individual is helpful, supportive and thrives in different aspects of life. Individuals who are high in this trait are usually thoughtful, kind, reliable and consistent, always ready and willing to cooperate with others (Kemboi, et al., 2016). Since agreeableness has social characteristics, study has revealed that agreeableness completely shows a relationship with team members. In a study conducted among leaders in various professions, it was discovered that leaders who scored highly in agreeableness were more likely to be regarded as transformational rather than transactional. As a result, agreeableness was found to have a negative relationship with transactional leadership style in the military. In a study conducted among leaders in various professions, it was discovered that leaders who scored high in agreeableness were possible to be regarded as transformational rather than transactional. Therefore, agreeableness was established to have negative correlation to transactional leadership style in the military (Costa & McCrae, 1992). Hence, it is probable for organizations to determine individual's performance according to their personality type. Individuals who score low in agreeableness focus on self-interest without getting along with others. They are likely to be unsupportive of others' opinion, unhelpful and unaccommodating (Zahra, & Malik, 2017).

Neuroticism: This trait reflects nervousness and sensitivity to danger. This trait is sometimes referred to as emotional instability. Neuroticism is connected to individual low levels of acceptance of trauma and anxiety (Eysenck, 1967). Individuals who score high in neuroticism react immediately to emotion and are susceptible to pressure. They read meanings to every situation and interpret insignificant actions as completely difficult (Friedman, & Schustack, 2016*).* This trait correlates with a lack of satisfaction and intensifies the individual's possibility of going into depression. However, low score in neuroticism makes individuals to be calm, less emotional and reduce unrelenting harmful thoughts (Friedman & Schustack, 2016).

It is evident that personality and a learner's career choice are related, however, depending on the personality type, the direction could be either positive or negative. A study conducted in Ireland on students at the Institute of Technology revealed that there is a personality discrepancy in career decision-making; statistics showed a higher rate of withdrawals of teenagers from the programme compared to the university (Wu, Zhang, Zhou, & Chen, 2020). Higher Education Authority (HEA) confirmed that this is as a result of wrong career decisions at the beginning (Clement, 2014). The process of choosing a career involves several factors, and personality is one of them, which is linked to individual's motivation and fulfilment. Kemboi et al., (2016) examined the link between personality traits and career preferences of 399 Kenyan students. The study found that students were content with their selected program prior to entering the university, which shows that appropriate career selection would enhance contentment and achievement in learners' future endeavours.

In Kenya, another study conducted on personality types and interests concluded that many learners' decision-making regarding their career is influenced by their personality types and interests, although a research of similar nature carried out in South Africa revealed that financial factor influences career decision-making of learners (Abrahams et al., 2015). Individual's preference and personality is a contributory factor in career decision-making processes (Zing, 2007). Edward and Quinter's (2012) exploration revealed that a person's propensity to a specific vocation and preference for a profession is determined by his/her personality, which is an essential aspect in planning a career path.

Research conducted by Chireshe (2012) with 770 South African students established the link between personality characteristics and job preferences. This revealed that these relationships may be influenced by gender and race, which are slightly different from other countries. The relationship is weak in contrast to what is achieved in other countries, due to cultural and environmental differences. Literature revealed that conscientiousness displayed an intimate relationship with personality and vocation, career anticipations and career success (Feldt & Woefel, 2009). Openness is linked positively and considerably with career decision-making but unenthusiastically and significantly connected to prevention; the ability to think differently when making career decisions is linked to being open to new things (Forthmann et.al, 2018). Storme,

Celik and Myszkowski (2017) assert that a challenge in career decision-making is an intermediary between individual career choices and their personality.

As personality steadily affects every aspect of an individual decision, different studies that examined learners' career decision-making state that learners' personality presents the knowledge of the relationship that exist between the major motivations and the career decision-making of learners (Quinter & Edwards, 2011; Udoudoh, 2012, Perrone, Sedlacek & Alenxander, 2001). Some of the reviewed studies above such as Quinter and Edwards, (2011); Udoudoh, (2012), as well as Perrone, Sedlacek and Alenxander, (2001) were mostly quantitative in nature but they lacked qualitative results which could have provided in-depth analysis of the phenomena under investigation. Therefore, the present study adopted a mixed methods approach which ensured generalisation of results and in-depth findings.

2.3.1.2 Self-efficacy

One of the psychological constructs that determine how an individual perceives themselves is self-efficacy. According to Bandura (1977) self-efficacy is a personal verdict of how well an individual is able to perform courses of action necessary to deal with potential situations. Self-efficacy is concerned with every aspect of human endeavour and the belief that people hold concerning their ability to influence situations can strongly influence how a person faces challenges competently and their career decision-making. This is specifically evident and influential with regard to individual behaviour as it affects career decision-making. The evolution of technology advancement globally today has progressively become multifaceted with the process of harmonizing career decision-making with educational requirements (FidaLaschinger & Leiter, 2018). Many studies confirm that secondary school learners worldwide are facing the predicament of career decision-making (Cherry, 2017; Hoffman, 2013; Edward & Quinter, 2011). Every individual that undertakes the process of career decision-making is influenced by the circumstance in which they live, their individual ability and educational achievement (LaMorte, 2016).

Previous studies have shown that with no career guidance and counseling, secondary school learners are generally apprehensive of career decision-making (Soudagar, Rambod, & Beheshtipour, 2015; Vertsberger & Gati, 2016; Lent, & Hackett, 1987). The International Labour Organisation (ILO), (2011) characterized the insufficiency of career knowledge and understanding

amongst young adults about world of work to school curriculum that do not concentrate on early career awareness and preparation of learners for the world of work and vocational activities. It further expatiates that the lack of job market position for young adults in African countries generates disruptions that develop into a recipe for unbearable social behaviours; such as; robbery, drug trafficking and a foundation for socio-political unrest in the society.

Research conducted in America confirmed that 20% to 60% students registering at higher institutions are mostly indecisive of their career decisions (Stikkelorum, 2014). Likewise, in Lebanon, several university graduates embark on particular career paths that are not connected to their college majors (Ackermans, 2020). However, in Africa, causes of career decision-making problems among secondary school learners is mainly insufficient information, lack of knowledge and lack of experience to a career conduit (Adewunmi & Oyesoji, 2013). Career decision-making in Kenya has continued to be a perpetual challenge for learners as a result of inappropriate policy and its developmental scenery (Maraya, 2011). Studies done in Kenya revealed that people obtain employment in fields that are not related to their career options or their professional training but rather accept available options other than their career interest, capability or skills (Adewunmi & Oyesoji, 2013). Such employment leads to job frustration as a result of insufficiency in career self-efficacy, which affects their career efficiency. Ochieng's (2015) research conducted in Kenya on academic success and self-efficacy among secondary school learners confirms that secondary school learners in Kenya lack an adequate sense of self-efficacy required to demonstrate perseverance on tasks during career challenges. Consequently, as secondary school learners plan their career paths at the end of their secondary school education, there is need to effectively engage in self- regulating processes.

Furthermore, a sturdy sense of efficacy improves human achievement and individual welfare in several ways. An individual with guarantee in their abilities approach complex tasks as challenges to be conquered rather than as pressure to be circumvented (Sachitra & Bandara, 2017). Challenging goals could be set, to bring improvement and strong commitments to overcome such challenges, which result in immediate recovery in the sense of accomplishment following failures or setbacks (Ochieng, 2015). Additionally, failure may be attributed to an inadequate attempt or lack of understanding and expertise which are obtainable from their personal experiences. By

contrast, individuals who are uncertain of their abilities stay away from complex tasks which are perceived as personal pressure. Dwindling ambitions and low dedication to the set goals, when confronted with complex tasks, may produce unpleasant results instead of focusing on successful performance (Odanga, Raburu & Aloka, 2015). People with low self-efficacy beliefs relax their abilities and efforts and also give up on challenges as they find it difficult to recuperate their sense of efficacy during setbacks or failures (Odanga et al., 2015).

Individuals are the product of their environment; therefore, beliefs of individual efficacy can affect their career decision-making by influencing the kinds of activities they engage in, based on the chosen environments (Sachitra & Bandara, 2017). People nurture diverse capabilities, interest and social interactions that influence life decisions. Career decision-making and career development are components of self-efficacy beliefs that have an effect on the life paths through the decision-making processes. The more advanced the level of an individual's self-efficacy the broader the range of career choices they have to consider. The better their interest in the choices, the greater they prepare themselves educationally for the professional quests they desire and the better their achievement.

The reviewed study by Odanga et al (2015) was conducted among high school teachers on their self-efficacy. However, the present study focused on how self-efficacy influences secondary school learners during the career decision-making process. Thus, the reviewed study focused on adults but not on adolescents which was the focus of the current study; hence it filled this gap in literature. Moreover, the reviewed study by Ochieng' (2015) was qualitative and descriptive in nature hence it lacked inferential analysis which could have provided strength on generalisation of results. However, the present study adopted both quantitative and qualitative approaches, hence was able to provide quantitative results for generalisation.

2.3.1.3 Career interest

Career interest can be described as the process by which a person explores, scrutinizes, and investigates their interest before deciding on a career. Converting personal interest into a feasible career is daunting for an average person and presents a problem for a lot of people. Nonetheless, the knowledge of a person's abilities, skills, interest and personality may assist during the career decision-making process (Nyamwange, 2016). Investigating a possible career involves

understanding what an individual enjoys doing, and things that serve as a motivation in the environment as an important element for career inspiration (Osa-Edoh & Alutu, 2011). It is essential for a person to be aware of factors that influence, that stimulate such an important decision from a perspective of sufficient knowledge (Almon & Matsidiso, 2012).

Career interest is an individual's leaning concerning work tasks and environments. Identifying an individual's career interest helps a person to make informed and a more rational decision concerning career choice. Choosing a career requires a person's understanding of their interest to decide on a career, which means that an individual is able to recognize their strengths, capabilities and skills to follow a career path that match the identified capabilities and strengths (Salami & Salami, 2013). Given that a person's career interest could change ultimately, it is therefore important to identify career information often. Since an individual's inclinations regarding vocation and work functions vary according to individual relationships and integration in the work environment. Career interest may differ from outlines and structures. The understanding of different types of career interest could inspire learners to identify their career interest and work towards skills acquisition as they move forward in their learning process.

Career interest is regarded as a forward planner for both career inclination and outcome (Nyamwange, 2016). Scholars assert that career interest is optimistically linked to decisions to enlist in a profession (Hechtlinger, Levi & Gati, 2017). In addition, self-efficacy has been revealed as a predictor of career interest (Vosh & Schauble, 2014). Students who demonstrate interest in a certain subject at an early stage in their academic pursuit often choose a career that relates to that subject ultimately (Vosh & Schauble, 2014). Individual attitudes influence the development of interest, morals and principles, which influence learners' career decisions (Almon & Matsidiso, 2012). While investigating career interest, Ahmed et al., (2017) found that interest in chosen school subjects was the most considerable factor that influences business students career choices when match up to individual factors, such as potential career opportunities and ease of subject, which had nominal influence career decision-making process.

Kazi and Akhlaq (2017) discovered that interest shown by learners in certain subjects will eventually advance to better marks in the examination and ultimately the selection of career path in the similar direction. An investigation into the enrolled students of information technology

shows that interest in the subject played a key role when examining factors that contribute to career path pursued by students (Alexander et al, 2011). Similar study conducted in Kenya revealed that of all the factors that were listed as influence on students' career choices, interest and gender had most influence. Security was mentioned by the students as another important factor that influenced student's choice of career because the majority of them mentioned that it was simple to pursue a career that a relative or a role model specializes in (Kochung & Migunde, 2011). According to Nyamwange (2016) it is important to have an understanding of a career before making career decisions in order to develop and nurture interest in the career. The study concluded that in spite of the importance attached to this decision, there is still no comprehensible procedure for students to make a career decision (Eremie, 2014).

The unequal system of education in South Africa provided the inconsistency in the condition of career guidance at Secondary Schools (Mahlomaholo, 2012). The purpose of a career counsellor was restricted by the apartheid policy, and the counsellor was required to get used to the established laws, to offer learners appropriate career guidance as stated by the established rules (Mahlomaholo, 2012). Before making a decision on career path to follow, learners are given the opportunity to select their subjects in Grade 10, which will lead them to their career path, based on their performance in Grade 9 (DBE, 2015). The ability of learners in township schools to choose the subject combinations that will guide them to their career choices and interests is lacking. However, their choices are determined by their experience in the previous class and their opinion of the ideal vocation irrespective of their interest, due to inadequate information in career guidance (Mudhovozi & Chireshe, 2012).

Learners from well-heeled neighbourhoods have career guidance opportunity in comparison to learners from township schools, who have limited access to career information (Mudhovozi & Chireshe, 2012). According to a study by Maree (2013), the type of school attended, the parental income, and the educational level of the parents all affect learners' decision-making regarding their careers. Additionally, it was stated that wealthy communities' schools provide learners with various career options relevant to the demands of the labour market, whereas underprivileged communities' schools tended to focus on traditional professions like teaching, nursing, and law.

The reviewed study by Ahmed et al., (2017) focused on business students' interests and career choices. Furthermore, Kazi and Akhlaq (2017) investigated the career interest of students who were enrolled in information technology programme; these reviewed studies focused on adult students while the present study examined career interest among adolescents.

2.3.1.4 Locus of control

Locus of control is the level at which individuals sense that they have control over the circumstances that affect their lives (Cherry, 2019). In addition, it can be seen as a person's set of beliefs concerning experiences and the aspects to which individuals ascribe failure or success (Woo, Henfield & Bang, 2017). The two types of locus of control for this idea are typically internal and external (Li, Hazler & Trusty, 2017). Li, Hazler and Trusty (2017) contend that the attribute of success to personal efforts and abilities denotes internal locus of control, success being attributed to fate or destiny suggests that control comes from other sources, which can be regarded as external locus of control. An individual with internal locus of control will be motivated to succeed and be prepared to learn while someone with external locus of control will not make any required effort necessary for learning to take place. This could result in anxiety since it is believed that individuals who experience external locus of control are not in direct control of their lives. Although, this does not determine a good or poor locus of control (Newman & Newman, 2017) as there are other factors to be measured, research in psychology discovered a person with an internal locus of control appears to achieve more and get more comfortable with life (Li et al., 2017).

On the other hand, Cherry (2019) argues that locus of control is considered to shape individuals based on their personal childhood experience. Children who were encouraged and assisted by their parents to be independent discover the correlations between actions and consequences; leads to development of internal locus of control (Cherry, 2019). Joelson (2017) indicates that children with greater internal locus of control tend to have a healthy life as adults. Their developed confidence leads to higher self-worth which inadvertently positively influences their career decision-making (Joelson, 2017). From time to time, the locus of control is viewed as a steady personality construct, though this may be ambiguous as research and theory shows that locus of control is basically learned (Lopez, 2011). According to Joelson (2017) locus of control is a reaction to different situations, psychological and educational intercessions found to generate change towards internal locus of control, which could facilitate decision-making in learners.

A locus of control point of reference refers to whether the results of our deeds are determined by what we do or by uncontrollable occurrences (Rotter, 1966). In general, having a sense of locus of control appears to be psychologically beneficial, especially when one discovers that one has control over things over which one has impact. Men, according to research, are more internally focused than women. Individuals grow more internal as they become older and move up the corporate ladder (Rotter, 1966). However, people must be warned from falling into the trap of believing that internal locus of control is preferable to external locus of control. For an individual to effectively perceive personal control and a sense of responsibility, an internal locus of control must be matched with competency, expectation, and self-efficacy (Rastegar & Heidari, 2013). People who lack competency, anticipation, and self-efficacy and have an internal center of control may feel afraid, apprehensive, and unhappy. People with an internal locus of control, nonetheless, should have a pragmatic knowledge of their sphere of influence in order to be successful. People who have an external locus of control, on the other hand, may enjoy more peaceful, pleasant, and stress-free lifestyles (Asiedu-Appiah, & Addai, 2014).

However, psychological research has indicated that people who have a stronger internal locus of control are better off, for example, they are more goal-oriented and find better-paying occupations (Shojaee, & French, 2014). Locus of control is occasionally noted as a stable, fundamental personality trait. However, this may be confusing, given that theory and research suggest that locus of control may be learnt (Rastegar & Heidari, 2013). A variety of psychological and pedagogical interventions have been discovered to facilitate a shift towards the internal locus of control, implying that locus of control is, to some part, a response to events (Rotter, 1966; Spector, & O'Connell, 1994; Rambe, Modise, & Chipunza, 2018).

Similarly, individuals who perceive a greater likelihood of an internal locus of control accept personal responsibility for their career decisions, as opposed to those who sense an external locus of control, who may view career planning as a random event (Asgari, & Vakili, 2012). As a result, the degree to which Grade 12 learners feel in control of their life and exhibit self-assurance in their capacity to make career decisions could be vital to their vocational planning following career pursuits (Chen & Silverthorne, 2008). Attention to psychological and social issues must be

emphasised when studying the vocational decision-making process of Grade 12 learners in township schools. That is, career counselling experts may benefit from a comprehensive assessment of learners' behaviour, notably their self-confidence in making career selections and their perception that career decisions are under their control (Asgari, & Vakili, 2012).

In addition to self-efficacy in making career decisions, a study found that career locus of control could be a useful predictor of learners' professional maturity. The extent to which a person thinks they are in charge of the basis of reinforcement in his or her life is known as locus of control. Furthermore, locus of control is not an expectation of a specific type of reinforcement, but rather a simplified problem-solving expectation, addressing the question of whether or not behaviours are viewed as influencing goal achievement, regardless of the nature of the objective or reinforcer (Rumalutur & Salim, 2020). Individuals who see an internal locus of control may believe they have more control over personal responsibility for the path of their life than those who perceive an external locus of control, who are more likely to believe they are unable to alter conditions. The locus of control of an individual is consistently linked to the estimation of career maturity, according to research (Rumalutur & Salim, 2020; Owusu, Bekoe, Okyere, & Welbeck, 2019). When compared to learners with an external vocational locus of control, learners with an internal vocational locus of control are more likely to have positive attitudes and display advanced investigative skills of professional maturity.

Zaidi and Mohsin (2013) investigated the relationships between locus of control, talents, and career decision-making attitude among freshmen at a big institution. As anticipated, significant links between locus of control and vocational decision-making abilities were found. The results showed that students with an internal locus of control had stronger career decision-making abilities and displayed more mature career decision-making attitudes (Zaidi & Mohsin, 2013). These findings suggested that students who have an internal locus of control are more likely to actively engage in career planning and take responsibility for their career decisions than students who have an external locus of control (Zaidi & Mohsin, 2013).

Rambe, Modise, and Chipunza's (2018) study in South Africa posited that students with internal locus of control are more positive about their job than students with an external locus of control.

The outcomes of this study imply that an internal career locus of control may enhance commitment in career decision-making and may also contribute to educational success (Rambe, et al, 2018). Adams, Kalliny, De los Santos, and Wang (2008) study in USA reported that students with an external locus of control were thought to have lower employment objectives and expectations. The results also demonstrated a substantial tendency for people with an external locus of control to have lower work satisfaction expectations and a larger discrepancy between what students want and what they believe they can achieve. The findings suggest that the teaching of professional decision-making approaches should be combined with the exploration of students' experiences of control over occupational views.

Career locus of control in career decision-making has been found as a crucial indicator of career maturity (Mustafa, 2011). Studies have analysed locus of control and career decision-making in the past to determine the best predictor of career maturity. This research also shows that learners with an internal locus of control are more effective in making career decisions than those with an external locus of control. Hans, Mubeen, and Ghabshi's (2014) study also discovered that students who work in occupations that are aligned with their career goals are more likely to be satisfied in their chosen field.

From the foregrounding studies, Adams et al (2008) explored how locus of control relates to students' aims and anticipations to find fulfilling job. In the same vein, Ramba et al (2018) examined how locus of control influenced college seniors' attitudes towards their professional activities. However, the present study considered influence of locus of control on Grade 12 learners' career decision-making process.

2.3.1.5 Psychological identity

Identity is a construct we make using our perceptions and a condition of reality. In the concretization of our existence, identity is a daily experience. It is an occurrence, our actions have a sense of continuity with the image of ourselves that we have, a reference that is founded on how we interpret reality. This reaction to a situation, a constant process of change, and a necessary reference to history allows us to comprehend who we are (Rodrigues, Stobäus, & Mosquera, 2016). We are always building reality, because it is an interpretation of what we recognise, establish, and

the way we give meaning to what we experience that allows us to be in front of well-known realities. The reinforcement we construct of what we experience is based on the standards of clarification that we have learnt based on the learning processes that we get; only the form is inexplicable. This corresponds to the formalization that we make of what we perceive (Licona, 2021). We are the embodiment of history, of how we have learned to understand historical events. We are the embodiment of the future, which manifests itself in our appearance and behavior. Above all, we live in a dynamic present that is constantly changing where the components that rouse us occupy different levels of hierarchy and influence our judgments and choices constantly.

Identity may be described as a dedication to a special combination of standards, principles, objectives and capabilities (Newman & Newman, 1990). The improvement of purpose entails assessment and elucidation of individual wellbeing, interests, learning and career decisions (Newman & Newman, 1990). This is an inclination towards life approach, which may serve as the integration of purpose in the identity development measures of Secondary School learners (Sampson, 1978). The identity development process in Secondary School learners is distinguished by individual exploration of available opportunity before making a career decision. According to Cheek and Briggs (1982), it is generally acknowledged that career decision-making is an essential feature of identity formation in human development. Individual identity is well communicated in the society through commitment to a career (Cheek & Briggs, 1982). Educators are charged with the responsibility of facilitating growth of Secondary School learners towards career decision-making.

The confluence of the personal inner life and the exterior public is identity. Personal identity is the outcome of development within a specified social and cultural context into which the subject is embedded, but not implicitly, because this situation, is impacted by the person in continuing construction while also having an impact on the individual identity through possession (Berzonsky & Cieciuch, 2014). Mosquera and Stobäus (2014) recognize that identity is an ongoing process rather than a finished object. The subject's identity is formed due to social and cultural influences throughout their lives, and it is from this that we may learn about ourselves. Each person's identity formation is not objective; rather, it is a series of values evolving from human beings' ability to be

dynamic, constantly (re)constructing their presentations and activities, their experiences, and their desire to understand a world filled with many opportunities, interests, and principles. None of these traits are static; rather, they are always evolving, influenced by, and impacting the social situation, leading to a more dialectical and practical design.

Self-esteem and self-image, according to Rodrigues et al (2016), are part of the psychological identification process that leads to a greater and more accurate decision and fulfilment. Since self-esteem is socially constructed from the social value of experiences that a person submits to and is accepted in their interpersonal relationships, everyone wants to feel valued positively and as a result, improve their self-esteem more realistically. In this view, the dialectical relationship between self-esteem, self-actualization, and self-image shapes the identification process.

According to Karaś, Cieciuch, Negru and Crocetti (2015), how one prepares and arranges work in connection to other parts of life has a substantial effect on feeling of well-being. First, the individual is content with their monthly income in terms of their employment, vocation, and career (or equivalent rewards, such as while "working" in an NGO), without the use of any other sort of motivator or reward. The job itself becomes the trigger, the motivator of performance, independent of numerous circumstances like money and/or advancement to a higher rank or better compensated employment. Finally, occupational choices and preferences are related to personal involvement in professional advancement, such as securing a promotion, higher income, and a higher prestige.

The reviewed study by Rodrigues et al (2016) examined self-esteem and self-image as components of an individual’s psychological identification process that enhance self-knowledge and self-realisation. In addition, Karas et al (2015) found that individuals’ well-being is an influencing factor of psychological identity. However, the present study examined the influence of psychological identity on career choice.

2.3.1.6 Self-esteem

Rosenberg (1979) characterised self-esteem as a complete sense of worth or personal standards, revealing an individual's love towards themselves. It entails a selection of beliefs concerning oneself, such as the evaluation of personal appearance, attitudes, feelings and conduct. When someone exudes self-assurance and regard for themselves, that person is said to have high self-esteem. High self-esteem is demonstrated with appreciation of merits while identifying personal faults for amendment and growth. Low self-esteem involves personal lack of respect and confidence about oneself, which may bring about self-consciousness and feeling incompetent (Zacher, 2015).

The term "self-esteem" discusses a person's estimation of their own worth. The worth one places on themselves, and this worth is based on previous successes and failures (Rebellow & Patra, 2017). In numerous situations, one's emotional, cognitive, and behavioural reactions are influenced by one's self-esteem. Self-esteem is a person's assessment of his or her capacity for decision-making in a certain circumstance, as well as that poise, or lack thereof, can influence career decisions (Joo & Jung, 2015). When it comes to precarious decision-making, people with positive self-images are the foundation of good self-esteem and are less protective when faced with a difficult task. Outside factors can steer or affect the direction of the method of making decisions and the degree of impact is determined by the decision maker's level of self-esteem (Jung, Park & Rie, 2015). Learners with low confidence are unsure of their own talents and hence find it difficult to make even the most basic judgments. Parents, teachers, or friends may have had an influence on what one ate, wore, and how one dressed as a child, limiting one's ability to make decisions (Zacher, 2015). Now that he is an adult and ready to go into the world of work, he is suddenly faced with a greater number of options to make, and with little or no prior experience, one begins to fumble at each level of decision-making (Haase, Poulin & Heckhausen, 2012).

One of the characteristics of self-appraisals in educational and vocational decision-making is self-esteem. Because of his own inadequacies and the question of whether or not it is desirable to plan for the future, an individual may believe that his prospects of achieving particular goals are slim. According to Husman, Hilpert and Brem (2016), an individual will decide on the profession that he believes will allow him to put his self-worth into action, that is, the vocation that allows him to

be and become the person he believes he is. When making a vocational decision, an individual considers whether or not a particular alternative will allow him or her to function in a capacity that is compatible with his or her self-esteem. As a result, self-esteem plays a part in the process of determining career decisions as a moderating component (Caserta, Pirttilä-Backman & Punamäki, 2016).

Young adults are prime candidates for developing positive self-esteem, which is typically influenced by relationships with their families, teachers, and peers. From preschool to high school, encouragement and helpful criticism from parents and teachers, school connections, and other people's support will all have an effect. While persistent criticism, taunting, and failures might make one feel unworthy, inspiration, encouragement, and learning a skill can help one develop self-confidence (Rebellow & Patra, 2017). A person's decision-making may be impacted by this lack of confidence or a lack of confidence in general. Among other things, peer pressure and outside forces can influence and direct decision-making.

Although self-efficacy and self-esteem are closely related, they are two separate notions (Taber, 2013; Dickinson, Abrams & Tokar, 2017). Those who have strong self-esteem are confident in themselves regardless of their beliefs about their abilities, skills, and other attributes, whereas those with low self-esteem feel horrible about themselves even when they believe they are competent (Joo, 2014). Self-esteem is a significant factor that influences many facets of life, including employment and job performance. Core self-assessments, such as self-esteem, were significant predictors of career decision-making (Brown & Marshall, 2001). In other words, those who have a high sense of self-worth are more likely to strive for actions and proficiency, which leads to better career decision-making. The current study examined the relationship between self-esteem and career decision-making among Grade 12 learners in township Secondary Schools. The current study predicted that those with high self-esteem would be able to make better career decisions than those with low self-esteem.

Emotional reactions, particularly anxiety and averting emotional processes, are frequently linked to self-esteem (Zacher, 2015). According to Dickinson et al (2017) individuals with strong self-esteem may have less anxiety. Self-esteem was connected to anxiety, a negative influence

condition. This suggests that those with low self-esteem are more prone to be anxious about making career decisions in everyday life. Individuals with low self-esteem possess a frail sense of self that may be injured easily by others (Robins, Hendin & Trzesniewski, 2001). Serling and Betz's (1990) research indicate that fear of commitment is the inability to make important career decisions because of negative thoughts towards the outcomes after decision-making, which is negatively associated to self-esteem (O'Brien, 1991).

The above reviewed study by Serling and Betz (1990) examined the utility of fear of commitment among college students' as it relates to their self-esteem, using psychometric evaluation to obtain required data for the study, and it lacked in-depth qualitative results. Therefore, the present study employed mixed methods as a research design to obtain detailed information regarding learners' self-esteem as an influence in making decisions about their careers.

2.3.2 Social factors

There are various social factors that are relevant to this study, for example family related factors (influence of older siblings, parental level of education, parental occupation and family income) as well as school related factors (peer influence, teachers influence and career information services). Peer group and parental pressure including parental education background and finance could perform an essential role in the career decisions made by learners. These factors are discussed below.

2.3.2.1 Parental level of education

Most people agree that the solution to the world's socio-economic problems is education. Individuals trust education to provide a solution for ignorance, poverty, mental deficiency, bad government and drought among other things. Every parent desire towards life-quality and social standing (Hui & Lent, 2018). Career decisions is one of several important decisions that learners will be required to make in order to determine their future career paths. This decision will undoubtedly affect the learner for the rest of their lives, as the essence of the learner's identity will revolve around the learner's desires for a long-term career (Nyamwange, 2016).

Another factor that influences learners' vocational interests is their parents' educational level. According to Udoh and Sanni (2012) parents who have adequate education levels are more likely

to find respectable employment. With their level of income and experience, they are empowered to give their children better educational support and to talk to them about job opportunities, which encourages their children to become more aware of their career options than children who are not exposed to this type of information. Some parents are unable to help their children make decisions about their careers and institutions, as well as to support their children's educational difficulties because they do not see the benefits of higher education, (Timmey & Chapman, 2012).

Something to consider when learners choose a career is the influence of their parents, which would have a significant influence on their choice of career. According to Moris-Lange and Brands (2015) most learners are influenced by the vocation that their parents approve of in order to circumvent disagreement in the home. Consequently, the youths are 'puzzled' at the reasons for parents' involvement which makes them feel more like children and incompetent to make their own decisions. Such attitude may affect a learner's career choice especially when parents negate the individual's ability to make such decisions. As a result, this may affect learners' self-confidence and possibly feel incomplete in the career.

Studies confirm that parents' level of education play an important role in learners' future career aspirations and career goal development (Xing & Rojewski, 2018). Without adequate support and approval from a parent, young adults are often hesitant to explore different career opportunities available to them in their environment (Fouad, Kim, Ghosh, Chang & Figueiredo, 2016). According to Sawitri, Creed and Zimmer-Gembeck, (2015) adolescents usually reference their parent's educational level as an essential influence on their career decision-making. The level of parental education was found to be an influential factor in learners' career decision-making, however, there are varying views and findings as to which parent characteristics or educational background has the most influence on learners' career decisions (Xing & Rojewski, 2018).

According to Mbagwu and Ajaegbu (2016) learners whose parents have advanced degrees are more consistent in their career choices and have no trouble doing so. On the other side, learners whose parents have little to no educational experience may find it difficult to make career options (Mbagwu & Ajaegbu, 2016). According to Kweyama (2016) a learner's choice of career is influenced by the educational level of their parents. In these situations, it becomes challenging for the learner to get career-related information and assistance from their parents (Kweyama, 2016).

Moreover, because parents frequently pressure their children to follow careers that they would have preferred, many parents have failed to help their children make informed career decisions (Olamide & Olawaye, 2013). In other instances, parents have pushed their kids to enter professions that, in their limited knowledge and experience, they perceive as the most profitable and prominent (Olamide & Olawaye, 2013). According to Usinger (2005), in low-income school districts, learners are nurtured in a non-directive atmosphere where they are neither pushed nor dissuaded by their parents to pursue particular vocations; as a result, parents have little control over their children's vocational development.

Similar, such as those conducted by Ginevra, Nota and Ferrari, (2015); Wu, Low, Tan, Lopez and Liaw (2015) have looked differently at the influence of each parent on the career decision-making of their children and discovered that mothers have a greater influential power over their children's career decisions and aspirations than fathers. For example, Fouad, et al. (2016) found that mothers are mostly influential in their children's career decision-making and that female children pursue related professions to their mothers. This study investigated parental influence regardless of whether one parent influences or both or the influence comes from the care-givers or grandmothers who act in loco parentis on the career decisions of learners, since there is a history of most families in South Africa not having present fathers.

2.3.2.2 Family income

Financial capability and background play a crucial part in learners' career choice decision-making. Learners from disadvantaged communities are prevented from making appropriate and suitable learning opportunities and career choices. Such learners have a tendency to avoid careers that necessitate extended periods of training because of their financial constraints (Martinez et al., 2017). Learners from a lower socio-economic background do not have adequate opportunities to make independent career decisions. The lack of resources, the deficiency of exceptional abilities and an unrelenting demand to increase income levels among the deprived, increase throughput rate and lower failure rate is a challenge among learners from disadvantaged backgrounds in South Africa (Howard & Walsh, 2011). Hewitt's (2010) study ascertains that many learners are influenced by careers that their parents' support and some decide on careers that offer high earnings because of their financial background.

Family income level may determine the learners' career decisions during a particular period in the learner's life. Most learners from disadvantaged backgrounds will be restrained to budget on education based on their family's income (Wüst & LekoŠimi´c, 2017). To assist learners who are in desperate need of assistance and support (living beneath the poverty level) proper career counselling and intervention programmes are required to overcome educational and social inequalities to meet the minimum career standards (Porfeli & Lee, 2012). The environment plays an enormous role in learners' career decision-making process, as learners conventionally remain at home to either acquire further education or start employment, if the family cannot meet the necessary financial obligations. The family's economic background could either improve the commitment to proceed to higher education after Secondary School or cut learners' career plans short depending on the strength of the family (Risco & Duffy, 2011).

Financial restrictions experienced by individuals could impede their decision-making process in career selection. Wüst and LekoŠimi´c (2017) argue that the type of information people use and the financial resources they have at their disposal have a substantial impact on how they choose a vocation. According to Ushure's (2014), students' insufficient financial resources have a negative impact on their career choices. Their ambitions to become experts in prestigious disciplines such as engineering, medicine, and so on would be limited by their financial resources. The study further claimed that, in certain situations, even low-status children find it difficult to make an informed career decision due to a lack of funding to continue their education. The role of primary sources of financial support for learners was determined in a study of 721 undergraduate students; parents and bursaries were found to play a significant role (Fareo & Garkuwa, 2018). The findings also reported that future career rewards, such as the possibility of greater future salaries and promotions, are factors that affect undergraduate students' career choices.

The reviewed study by Ushure (2014) was conducted among undergraduate students using a quantitative research method with mean percentage and t-test for data analysis and it lacked in-depth results while the current study focused on Grade 12 learners and employed both quantitative and qualitative research methods to analyse data.

2.3.2.3 Peer influence

A peer group is a social group of individuals, usually in the same age group, background, and social class with whom an individual relates and who could possibly influence their beliefs and behavior (Irma, 2015). Even at a young age, the peer group is an association of tradition and learning. Children establish a sense of personality from their views of significant people in their environments, including peers (Bankole & Ogunsakin, 2015).

The career related decisions among young adolescents have become a great concern for educational psychologists and planners. This is realised based on the awareness by stakeholders of the inbuilt risks and dissatisfactions experienced by the young adults, who find themselves in the wrong careers or professions (Bett, 2013). As a result, there is a need for career guidance counsellors in schools who would assist the Secondary School learners to select appropriate subjects that are aligned to their abilities without having to rely on peers. Career decision-making among young adults is influenced by several factors of which peer influence is an important one. Peers play a major part in the development of the adolescents; the capability of peers to influence adolescents' attitudes and behaviours is inflated when they observe that their relationship with their parents is pessimistic or lacks support and expected guidance (Okiror & Otabong, 2015). In addition, peer influence on adolescents is essentially more influential than at any other stage in life. The nature of the association among young adult and their peers, with the kind of peers they relate to, contribute immensely in supporting their imminent career decisions (Bett, 2013).

Peer influence has an essential role in a learner's career decision-making process. According to Naz, Saeed and Waseem (2014), peer influence is instrumental for emergent career decision-making and career prospects among young adults.Peer influence also enhances individual perception and positions towards decision-making. Research indicates that peers inspire individuals to move towards more challenging tasks as they evaluate other peers' focal point in making career decisions (Irma, 2015). Research confirms that peers exercise pressure that affects one's career path. For example, a study conducted in Zimbabwe by Okiror and Otabong (2015) posited that a number of young adults are influenced by peers during their career decision-making process. Although, it has been mentioned that peer influence is not the primary influence on learners' career choice decision-making, depending on the level of interaction the learners

undertake with their peers (Alika, 2010). Hence, this study investigated the extent of peer influence on learners' career decision-making.

According to Arab, Gohar, Waseem, Nasim, Irumand, and Nasar (2014), a person's self-confidence to follow a vocation of choice can be strengthened or weakened by peers' actions toward gender norms. Teenagers are easily influenced by their peers since they rely on them to validate their decisions, particularly those about their careers (Bankole & Ogunsakin, 2015). Contrarily, research shows that peers have less of an impact on undergraduate students' career decisions (Bett, 2013). The relationship between learners' career decision-making and peer influence was therefore taken into account in this study.

Studies show that friends and peers considerably affect learners' decision-making (Clotfelter, Ladd, & Vigdor, 2007; Rivkin, Hanushek & Kain, 2005). Similar to this, the attitudes, successes, and standards of learners' peers can have a big impact on learners' interest in picking and selecting to pursue a certain course (Olitsky, Flohr, Gardner & Billups, 2010). Peers can have a significant impact on influencing each other's decisions, actions, and career aspirations during the era of development when a person is growing up and forming their personality and sense of self (Vedder-Weiss & Fortus, 2013).

The aforemetioned studies employed a quantitative research method to investigate the influence of peers and friends on learners' interest to decide on a course of study. This study used a mixed methods approach, that is, quantitative and qualitative methods. Additionally, a study conducted by Okiror and Otabong (2015) revealed the extent at which adolescents might be influenced by their friends or peers. The current study was carried out in township Secondary Schools in South Africa while the previous study was conducted in Zimbabwe.

2.3.2.4 Teachers' influence

Teachers face significant challenges in nurturing students by providing them with a variety of experiences to prepare them for life in this difficult world. Teachers shape the child into a dependable and self-sufficient learner. The first person a youngster learns social skills from in school is the teacher. Teachers put learners at ease while guiding them through the key ideas and practical skills. A teacher who is well-prepared, balanced, and open-minded can have a significant impact on a child's growth. The teacher becomes a real force in fostering the pupil's interest in

learning and helping to make him or her more independent as the youngster matures and acquires proficiency in a variety of skills (Mittendorff, Beijaard, den Brok & Koopman, 2012).

Teachers like parents are regarded as one of the major influences in learners' career decision-making towards the ultimate career paths that will be embarked upon by young adults (Kaur, 2016). This means that parents' beliefs impact learner's self-awareness of their capabilities and eventually their career decisions. In addition, studies confirm that a number of teachers support learners as they choose specific subjects, which are compatible with learners' propensities and capacities that have been identified (Mburu, 2013). Schools play a significant role in influencing learners' career decision-making (Mburu, 2013). In their study, Kaur, (2016) observed that schools are social organisations that reinforce appropriate character and interest in learners for future gain. This encompasses curricular subjects, quality of teaching and learning, learners' involvement in school activities and the learning apparatus for learners were discovered to serve as influence amongst learners during the career decision-making process (Okiror & Otabong, 2015).

There is a paucity of research on the influence of teachers on secondary school learners' career choices. It is not unlikely that some learners may choose a certain or specialised vocation based on the personalities of their teachers or the personal influence of these professionals. As a result, this study attempts to address this gap by investigating the role of teachers as a factor in learners' career decision-making. Especially among learners from less privileged backgrounds that have little or no knowledge of job opportunities and career guidance services.

2.3.2.5 Career information service

Information on career routes, information on related occupations and courses, and career counselling strategies, that involve doing individual or group interviews with the goal of addressing particular career challenges people experience, are the three primary aspects of career information services (Watts et al., 2010; Kirema, 2016). Career guidance is a crucial element of guidance and counselling in Secondary Schools, because it helps learners shape their future careers. Therefore, career counselling should be tailored to each learner's unique requirements,

interests, and abilities. As a result, these services should be geared to assist learners in shaping and managing their long-term careers.

Educational institutions have a direct or indirect influence on learners' career decision-making (Atitsogbe, Moumoula, Rochat, Antonietti & Rossier, 2018). Learners from African (Township) Secondary Schools face more challenges in deciding on an appropriate career because of inadequate information and available resources (Atotsogbe et al., 2018). In addition, underprivileged schools are more likely to focus on the educational core curriculum rather than any other aspects of education (Ombaba, Keraro, Sindabi & Asienyo, 2014). Additionally, through interventions and adequate information, learners are well prepared to plan for their future careers, which help them in their career readiness for the world of work (Adedunni & Oyesoji, 2013). Readiness is an essential component in career decision-making; learners tend to profit from extra interventions in helping them to be equipped for life after Secondary School. A study conducted on learners' readiness for career choice after Secondary School show that learners demonstrated to be better prepared for career decision-making after attending a workshop (Mburu, 2013). There are cost efficient methods that can be used to help learners make suitable career decisions, such as workshops and career seminars. Career guidance counsellors are essential players in steering learners towards the appropriate career path.

Mishra, Ismail and Al Hadabi (2017) found that having access to an academic advisor as well as having access to career information can affect learners' career choices. Secondary school learners' use of media may also have a big impact on their career choices (Okiror & Otabong, 2015). According to Oigo and Kaluyu (2016), career training, career information services, and career counseling provided to Kenyan students have no statistically meaningful benefit. Although some schools provide career counselling, they are not responsive to the modern environment, which supports the use of internet connectivity in the information era (Orenge, 2011). Career guidance counsellors and policymakers in education, according to Oigo and Kaluyu (2016), should construct formal career guidance curriculum that appeals to learners of various ages and levels of responsiveness to labour market information. Perhaps the implementation of such a curriculum would help rural secondary school learners make better career decisions (Rukwano, 2010).

All activities that consist of organized experiences designed to assist the development of self-knowledge, opportunity awareness, decision-making, and transition learning abilities are referred

to as career guidance (Pitan & Atiku, 2017). These actions, both within and outside an organization, shape a person's life span in relation to work-related and other important events (Sullivan & Baruch, 2009). Career counseling gives emotional support, increases confidence, and encourages optimism. It also helps people develop positive external goals by determining future goals and vocational identities (Okiror & Otabong, 2015; Robertson, 2013).

According to Nong (2016), providing secondary school learners with educational and vocational knowledge allows them to examine the various career alternatives before deciding on one. As a result, well-designed career guidance increases smart career choice. Pam (2013) describes career choice as the act of determining what one wants to accomplish with one's life in order to determine one's success in subsequent stages. In this sense, career choice is considered as the realization of one's occupational self-concept, which is impacted by both personal experience and feedback from others (Kimberly et al., 2016). It propels one to a specific career, and hence has long-term consequences.

Many life experiences occur in people's cultural environments, and these events often impact their beliefs and expectations in connection to work. This means that anyone starting new work must build an occupational profile for the profession in question, identifying his or her distinctive qualities, capabilities, and required skills (Kazi & Akhlaq, 2017). The ability to create such profiles and identify these distinct personality features is dependent on the supply of career counselling services inside a country's educational system.

According to Watts and Fretwell (2010), career orientation and guidance services are intended to assist people at any stage of their lives in succeeding in their careers while also empowering them to make occupational, educational, and training decisions. In their study of the impact of career guidance on university students' readiness to make career decisions, Oigo and Kaluyu (2016) found that the vast majority of students have little exposure to career guidance services, either because of the quality of career guidance services available in their institutions or because of their perceptions of the services. Moreover, career counselling services in Kenyan universities are not as well-established or sophisticated as those in other developing countries, nor are they planned or personalized to fit the needs of individual Kenyan university students (Oigo & Kaluyu, 2016). According to Ombaba et al., (2014), high school graduates enter universities or colleges with

limited knowledge about the future prospects of the courses they choose. Frustration, unhappiness, and college/university dropouts are all possible outcomes of such a situation. In their study of factors that influence career certainty among university students, Maingi and Wasanga (2011) found that most university students are unsure about their career choices due to a lack of occupational knowledge and a poor understanding of their abilities, aptitudes, potentials, likes, and dislikes. This, without a doubt, justifies the construction of professional career advising and counseling organizations at all levels of Kenya's educational system, not just in universities.

Countries such as the United States, Canada, and Australia have developed a competency framework for career management abilities that aims to clarify the notion of career management skills for career employees, policymakers, teachers, and learners (Hooley, Watts, Sultana & Neary, 2013). Furthermore, the United States and Singapore provide comprehensive school guidance and counselling services delivered by permanent school counsellors (Harris, 2013; MoE [Singapore], 2012). From basic to post-secondary school, Singapore's education system has incorporated career guidance curriculum based on appropriate learner experiences, with three advanced stages: career consciousness, career assessment, and career preparation. Pupils are exposed to career awareness programs during their formative years. Learners participate in career exploration programs as they advance through secondary school, and there is career planning at the postsecondary level.

Learners develop life responsibilities, abilities, and values as a result of these comprehensive programs. Learners gain proactiveness, flexibility, and resilience as a result of an integrated career guidance program, which leads to social and emotional competences that enable them to navigate through a lifetime of careers (MoE [Singapore], 2012). Though the career guidance framework differs by province, some significant class hours have been devoted to career guidance services throughout Canada. For example, British Columbia has set aside approximately 60 hours per year for career education and personal planning (Nong, 2016). However, the current study in South Africa shows that this is not the case.

Vocational guidance is a type of guidance and counselling offered at Secondary Schools in Nigeria. However, studies reveal that final secondary school learners in Nigeria experience difficulties in deciding on a trade or career path due to ineffective assistance programs in their institutions (Egbo, 2017). Furthermore, according to Kaneez and Medha (2018), many Mauritius schools do not provide any career counselling at all. According to Kaneez and Medha (2018), 64% of respondents

were unaware of any career assistance provided, whereas 36% of those who were aware had gotten career guidance through guest speakers and seminars outside of school. Similarly, career guidance in Rwanda aims to introduce learners to various educational options (Ministry of Education-Rwanda, 2015). However, there is a disconnect between institutions, with some offering career guidance services without frameworks to guide decision-making and institutionalize the process (Mpararanayo & Andala, 2015). According to Mekgwe (2010), the secondary school curriculum in Botswana allocates a 40-minute session per week for career counselling, in addition to organizing a variety of activities that improve the provision of career information, facilitate career exploration and development, and assist learners in making suitable career choices.

According to a study of high school students in Ghana, professional counselling, career goal identification, and the planning of career days and conferences were among the career intervention tasks played by school counsellors that influenced career choice (Amoah, Kwofie & Kwofie, 2015). According to Nong (2016), schools must provide in-service training for career educators, hold workshops, and develop career counselling guidelines and monitoring tools in order to improve career information services. These interventions will only be possible if there is a clear policy on funding career information that gives sufficient finances to career-oriented activities. As a result, the goal of this study was to determine the extent to which career information services are provided in South Africa's township public Secondary Schools to assist learners in making appropriate career decision.

In another study, Pillay and Thwala (2012) found that career decision-making of Secondary School learners from previously disadvantaged schools are predominantly affected by a lack of finance, poor academic performance, inadequate career information and substandard career counselling services. Similarly, Maree and Beck (2004) reports that learners from disadvantaged schools and communities experience career counselling differently as the facility provided was under-utilised. For example, the Department of Basic Education (2012) apportions 20% of the period in the Life Orientation curriculum to career guidance at Secondary Schools in South Africa with the purpose of supporting learners to discover their career preferences, however, this was not utilised in some schools (Department of Basic Education, 2012). Maree (2009) discovered that most learners passed Secondary School with no formal career counselling in any form and subsequently were deprived of the possibility to pursue their desired field of study at tertiary institutions or vocational

colleges. It is therefore important to assess the level of career guidance and counselling available in township Secondary School, which could assist learners in career decision making. Hence, the need to identify the psychological and social factors that influence Grade 12 learners in township Secondary Schools to choose the career path that they intend to follow in the future.

The aforementioned reviewed studies were conducted outside the context of the current study; hence this research study filled the gap in that context. In addition, the study conducted by Pillay and Thwala (2012) revealed that learners from disadvantaged schools are mostly affected by a lack of finance, poor academic performance, and inadequate career information. However, the findings did not include a lack of professional training, that is, professional career counselling. This study filled the gap by examining career counselling as one the challenges that learners faced in South African township Secondary Schools.

2.4 Demographic factors (age and gender) and career decision making

Demographic information about participants includes the distinctiveness of participants for example, gender, and age which are examined in the present study.

2.4.1 Gender and career decision-making

Gender is one of the human features of identity that is commonly used to distinguish between people in society. Individuals integrate gender into their self-concept starting at a tender age (Huffman, Olson, O'Gara & King, 2014). Consequently, there is a greater probability that gender may influence how a person interacts with society, the manner in which other people act in response to the person and other aspects such as career decision-making (Chinzer & Currie, 2014). Studies began to differentiate between natal sex and gender as this became glaring that natal sex does not determine a person's gender distinctiveness (Huffman, et al., 2014; Castellano, & Rocca, 2014). This differentiation between masculinity and femininity as against male and female started in the 1950s (Ansah & Chinomona, 2015), which gave more prospects for psychological research to study societal influences on gender differences and career decision-making among young adolescents (Ansah & Chinomona, 2015).

To comprehend individuals' careers decision-making, it is essential to consider gender, as it could influence a variety of career-related decisions, behaviours, other people's perceptions and

vocational outcomes. Men and women, boys and girls vary significantly in their decisions and several factors contribute to these variances (Hudson, 2019). Psychological experiences, which refer to the lifelong traits, set restrictions or develop an individual's thought and reasoning on how individuals view themselves on the basis of their gender towards their career decisions. Social happenings, which lay emphasis on the social learning experiences that individuals encounter while interacting with others, is of great significance here.

Parents have a tendency to regard boys and girls in a different way from an early age and convince their children to participate in gender suitable activities, for example; girls play with dolls or cuddly toys; boys play with trucks or cars (Hudson, 2019). Teachers and other adults behave differently toward male and female children and set different standards for children depending on their gender. Hudson (2019) states that male children are anticipated to be more unbridled and physically active more than female, while females are expected to be more sensitive and companionable. Consequently, individuals in children's environments tends to emphasise and send coherent messages concerning what is expected of them based on their gender.

In many industrialized and emergent nations worldwide, such as Thailand, a developing nation in Asia, women still have minimal career opportunities and they are socially, politically and economically disadvantaged when compared to men in the same country (Alansari, 2011). In positions of authority, men are considered to be more competent than women. There are comparable incidents in other countries, for example, a study conducted in Turkey on attitudes toward women managers' shows that men are professed as more dedicated to their work, more specific, and diligent than women managers (Srinivasan, Murty, & Nakra, 2013). In the same vein, men are extensively regarded as more capable than women in North America as well. Therefore, it can be assumed that the discernment of gender role can generate individuals' career barriers while making career decisions (Srinivasan et al., 2013).

Gender as a demographic component shows disparity in career decision-making and the choice of a career could be as a result of gender role perceptions among people in society. Initially, women have been categorised to be more answerable for household obligations but in recent times, the perceptions of gender role are gaining positive momentum, with an increase in men's household responsibilities (Tahir & Azid, 2015). Tahir and Azid, (2015) therefore, argued that the role of

gender could influence individual career decision-making. The cultural beliefs regarding gender may be responsible for the disparity in gender perceptions which may influence individuals' career decision-making as male and females may appreciate different factors associated with career decision-making.

Wesarat, Sharif, and Majid (2016) recommend that the enhancement of females' uneven treatment in the world of work should begin with creating equal opportunities in education to assure their employability, since unequal employment opportunities still exist among men and women. Likewise, Tahir and Azid (2015) affirm that the position of educational institutions is not limited to the selection of the most brilliant students but also to assist female learners and marginalized groups to prevail over cultural barriers that may hinder female learners from achieving their best in their careers. Career guidance and counselling may be of great importance in this aspect, as learners will have the ability to relate to a professional concerning their cultural beliefs about gender, which could be viewed as a crucial hurdle in a female's career. Specifically, negative cultural beliefs regarding women capabilities might disconnect them from major career opportunities for example, scientists, engineering and management positions (Tahir & Azid, 2015).

Moreover, gender differences could influence career decision-making of Grade 12 learners in township schools, in view of the fact that their career decisions are a reflection of some factors that are inspiring them to decide on a career path (Chileshe & Haupt, 2010). A study on factors that influence the career choice of undergraduate students in India revealed that males and females appear to experience dissimilar perceptions of factors influencing their career decision-making process. Despite the fact that they possess the skills to carry out specific activities, they might refuse to do these activities based on the lack of satisfaction with their expected factors (Castellano & Rocca, 2014). In a study in Nigeria, Denga (2004) reported that learners experience gender differentiation from pre-school, which continues all through their educational careers. In addition, that sex-role stereotype subsists among males and females in Secondary Schools as they desire to take up traditional career paths, such as doctors and lawyers. Alternatively, a study conducted in South Africa on factors influencing career decisions asserts that both males and females were inspired by the same factors (Chileshe & Haupt, 2010). It was argued that both male and female students professed salary, opportunities for growth, working environments and lifelong learning

as essential factors. However, this study will examine the influencing factors of both male and female Grade 12 learners towards their career decision making.

Hudson (2019) states that learners' career decision-making is influenced by their gender and the reputation of the career. Similarly, specific occupations that are viewed to be respectable for women are mostly preferred by women and those perceived to be best for men are generally accepted by men. Tong, Wang and Peng (2015) mentioned that family factors influenced women more when making career decisions; consequently, their decisions are founded on their families first, while decisions made by men are based on the job status. The reviewed study focuses on men and women in the workplace while this study focused on Grade 12 learner's perceptions of what will influence their career choices.

Wesarat et al (2016) studied the employment opportunities that are available to both men and women in the world of work. They recommend that the improvement of women's unequal treatment in the workplace begin with equalising educational opportunities to ensure their employability, because unequal employment opportunities still exist between men and women. In addition, Tahir and Azid (2015) in their study assert that the role of educational institutions is not limited to selecting the most brilliant students, but also to assist all female learners and disadvantaged groups to overcome cultural barriers that may prevent female learners from achieving their full potential in the workplace. Consequently, this study examined the relationship between genders and career decision-making of learners in township Secondary Schools. Denga (2004) found that gender differentiation begins in preschool and continues throughout a learner's educational career. This reviewed study was conducted in Nigeria while the present study was carried out in Gauteng province, South Africa.

2.4.2 Age as a factor in career decision-making

Individual decision-making abilities are still growing in secondary school learners, both mentally and emotionally. The absence of essential information regarding practical subjects will have an impact on career decisions, especially for Grade 12 learners. Career knowledge will assist the learner in being focused and clear about his/her career decision. According to Edwards and Quinter (2011), while still in secondary school, all youngsters should be given the opportunity to create

connections between academic and technical subjects, as well as work-related abilities. Because it is a dynamic process, decision-making can be repeated until the desired and suitable levels are reached. According to Laveck (2018), most people face the challenge of making a professional decision at least twice in their life, once for themselves and once in their capacity as parents, teachers, psychologists, or counsellors who often deal with such matters. Frustration will result if you are unable to find a respectable and fulfilling career. However, an individual's choice of vocation, school, or training should theoretically represent his or her interests, because information plays a crucial part in decision making, it's crucial to comprehend how much age influences children's career choices.

People are more likely to change occupations when they are younger and better educated, but not necessarily because they are more receptive to new experiences. Individual qualities and the labour market are both determinants in career adaptability (Shumba & Naong, 2012). According to research findings, people were more likely to move organizations, industries, and occupations when they were younger, with the age influence being the biggest.

The findings on age and career decision-making challenges are inconclusive. Martincin and Stead (2014) discovered that age had no bearing on decision-making difficulties. In a similar vein, Schmidt et al. (2011) and Edwards & Quinter (2011) discovered that, there is no significant relationship between age and career indecision. In a similar study, Fabunmi and Adedayo (2017) found that age differences between 15 and 17 years more open to a new experience were not significant. The findings of the following research Bacanli, (2012); Kornblum, Unger and Grote (2018); Gati, (2013) revealed that age is a critical characteristic that has a considerable impact on professional decision-making difficulties. Martincin & Stead's (2014) findings revealed a general pattern of issues faced by people of various ages. Older pupils, however, had fewer problems with internal conflicts and confrontations with others than younger learners. According to Kornblum et al (2018), older people have more challenges with lack of preparation than younger people. In a similar line, Laveck (2018) in his study claimed that younger participants showed higher degrees of unpreparedness.

Selecting a career is a difficult decision that should not be made hastily. When teenagers are not properly guided, they may make a number of poor judgments that have serious consequences for the young person who should have been assisted in making a successful career choice. If caution is not used, an adolescent may place significantly more emphasis on his interests than on his ability, leading to decisions that may be incorrect at the end of the day (Akpochafo, 2020).
According to Vertsberger and Gati (2016), there are some vocations that are extremely appealing to adolescents. Medical, Law, Accounting and Engineering are all attractive at first, but little consideration is given to the antecedent pre-qualification needs, whether social, scholastic, or environmental.

Adolescents in South Africa begin their journey to a profession decision as early as Grade 10, the penultimate year before sitting their final certificate examinations, after consolidating in Commerce, Tourism, and Science studies the previous year. The school uses the learner performance at the conclusion of Grade 9 to determine whether he or she should be enrolled in Commerce, Tourism, or Science studies (DBE, 2015). Adolescence is a time when teenagers' future careers are a big worry (Fabunmi, 2014). Initial decisions, however, are malleable and changed at a later point when awareness and information improve. According to Shumba and Naong, (2012), adolescence is the period during which one's thinking, feelings, motivation, aspirations, desires, and reactions shift dramatically from childhood to adulthood.

The adolescent's age has an impact on his or her vocation choice. Many academics believe that children should be introduced to occupations when they are in their early teen years, around the age of 13 or 14 (Bullock-Yowell, Mc Connell, & Schedin, 2014; Martincin & Stead, 2014; Akpochafo, 2020). At this point in life, career selections are speculative and unrealistic. Most of the time, the child's potential cannot be determined. It's still a period of career ambiguity and uncertainty. At this time, the career information can only be useful for both awareness and guidance. It could be for the purpose of assisting the young teenager in developing a focus for the future vocation they want to pursue, as well as the different pre-requisite qualifications for that career. The age range of 13 to 14 years is a transitional stage for children as they go from imaginations to tentative reality. In terms of careers, the actual age of reality begins around the age of 15 years (Ginzberg, 1951). In South Africa, learners in the school certificate class are on average

16 years old. It suggests that learners are more mature in terms of decision-making because many of them enter post-secondary Schools virtually immediately after finishing their secondary school final exams. The assumption is that they will have to make career selections sooner than anticipated (Shumba & Naong, 2012). At the age of 13 to 14, there is a strong case for career counselling. It's a terrific moment to broaden a child's understanding of what the world of employment holds for them in the future. It's time to consider what one enjoys doing and how to get started (Vertsberger & Gati, 2016).

The foregrounding literatures used primarily descriptive statistics to analyse collected data and the findings are inconclusive while the current study adopted a mixed methods approach to analyse data, to examine the relationship that exists between ages and career decision-making of Grade 12 learners in township schools.

2.5 Challenges to career decision-making

Adolescents face a number of challenges that are particular to their circumstances (Du Plessis, 2014). The lack of role models and qualified career-counselling teachers, poverty, low family socio-economic position, high unemployment rates, and high dropout rates could all be factors in the procedure's ineffectiveness for the majority of learners in disadvantaged communities (Dodge & Welderufael, 2014; Miles, 2015). The challenges that learners face is likely to prevent them from successfully transitioning from secondary to postsecondary education (Maila & Ross, 2018). Adolescents who are prepared to leave school and enter the workforce at this time need access to career guidance and information, yet South African township areas have limited access to career aid (van Zyl, 2017).

A source of concern and a principal challenge in the efficient functioning of guidance and counselling programs in schools is the scarcity of teachers with the required qualifications for offering career and guidance counselling. Schools face a hurdle in delivering career education due to a lack of knowledge and a shortage of skilled teachers (Coetzee, Ferreiran & Potgieter, 2015). Career counselling and guidance is becoming more widely acknowledged as a specialization that necessitates knowledge in areas such as: personal counselling, career counselling, and career assessment (Maree, 2017). Teachers have low morale, according to a study by Mncayi and Dunga, (2016), because of increased stress caused by increased workload that is out of proportion to class

sizes, too many requirements from the department, the Integrated Quality Management System (IQMS), the new curriculum, and there are too many subject areas that lack teachers or resources. According to Gati and Levin (2014), this is a potential problem for the educational system because depressed teacher morale prevents them from motivating and assisting their learners in acquiring the crucial information of the labour market and enhancing their employability skills. According to Maree (2017), teachers in township schools who are responsible for LO do not have the necessary competence for vocational counselling and are not properly prepared to do it. According to Maila & Ross (2018), in order to provide teachers with the social, professional development, and educational skills necessary to satisfy the requirements of learners, the Department of Education should retrain a small number of teachers who specialise in guidance counselling, and guidance training should be prioritized in funding.

Many township schools have teachers who lack adequate skills and expertise in career education, which is an issue that has a negative impact on learners' capacity to make educated career options (Gama, 2015; Singh, 2012). For many learners in South African township schools, the importance of career education is not given what it deserves, and it is a neglected right (Miles, 2015; Nong, 2016). Learners' capacity to make educated career decisions is hampered by a lack of career information and expertise (Dodge & Welderufael, 2014; Woasey, 2015). These learners might benefit from the teachers' understanding of various theories of career development and school-based methods as they navigate the large quantity of information that may be available to them for making career decisions (Glaze, 2016).

There is still a paucity of career counselling and information for learners in many rural parts of South Africa (Mathibedi, 2016). The majority of schools in these remote locations are unable to appropriately advise and educate learners as they make career decisions (du Plessis, 2014; Du Toit & Van Zyl, 2012; Maila & Ross, 2018; Joshi & Bakshi, 2016; Maree, 2017). Although they are not well trained to do so, Life Orientation teachers are often used to giving learners career advice and information (Miles, 2015). Since many of these learners lack the confidence to make informed professional judgments, they wind up choosing uneducated or inappropriate careers (Pesch, 2014). While some students leave school early in order to find employment and support themselves and their families, others are hopeful that education and obtaining respectable employment would offer a way out of their situation (Demeranville, 2016).

According to research by Mojapelo (2016), township schools lacked operational school libraries. Because traditional classrooms double as libraries, it can be challenging for learners to locate and access information on careers (Mojapelo, 2016). Secondary school learners who have access to school libraries are more likely to make informed career options (Baro & Eze, 2016). Due to the distances involved in travelling there, Pierson (2015) also found that learners in township schools would not have easy access to information on the academic fields studied at higher education institutions.

Furthermore, because most township schools in South Africa lack internet connectivity, learners are unable to use the Internet (Mooketsi, 2016). Introduction of learners to new concepts and worldviews and new ideas may be limited if they have little or no access to the Internet, restricting their ability to increase self-awareness and understanding of the workplace (Botha, 2017). Many township learners are also unable to pay the hefty data rates required to access the Internet (Graham & De Lannoy, 2017). As a result, searching for job vacancies, information on professional and educational possibilities, or using mobile technology or internet cafes is frequently limited (Graham & De Lannoy, 2017). Most African governments find it expensive to give township learners access to the Internet, and it is further more expensive in distant and rural areas where internet connections are more likely to be patchy or non-existent (Nhando, 2015).

High unemployment rate is one of South Africa's most pressing social and economic issues (Wilkinson et al., 2017). The changing structure of the labour market, as well as mismatches between the skills supplied by educational learning systems and those required by the labour market, are the most significant factors leading to the rising prevalence of youth unemployment (Graham & De Lannoy, 2017). This disparity in skill sets has several causes, which are related to a lack of career guidance and knowledge among township youngsters (Fraser, 2017).

Therefore, the studies reviewed above focused on the difficulties that learners faced when making career decisions in school, hence the current study bridged the gap by investigating the challenges that learners faced at home, school, and in their communities while making career decisions.

2.6 Conclusion of the Chapter

This chapter has provided the review of literature on the world of work in the 21st century and the missing puzzle piece in learner's career decision-making. The literature review is designed to highlight the psychological and social factors influencing the career decision-making of Grade 12

learners in township Secondary Schools. This chapter identified a number of factors and demographic components that could influence learner's career decision-making, and challenges that Grade 12 learners are experiencing in their career decision-making processes. The review included pertinent empirical literature and identifies research gaps that originated from the reviewed studies. The next chapter presents the theoretical framework for this study.

CHAPTER THREE

THEORETICAL FRAMEWORK

3.1 Introduction

This chapter presents a synopsis of the theoretical framework for this current study. This chapter discusses the theoretical framework applied in this study, the key proponents, their assertions, and finally how the theories informed the study. The theories are presented and discussed as follows:

3.2 Career Development Theory

The theoretical framework that underpinned this study is the Career Development Theory, which is discussed by a number of theorists who hold diverse opinions regarding career development theories. These theories reflect the importance of career decision-making, as an integral aspect of every individual's life. According to Brown and Lent (2013) career development is depicted for every individual as lifelong development that involves the ability to select, indicate and naturally endure to make appropriate decisions from the various career choices available in our present society. The Career Development Theory was initially developed by E.L Ginzberg and acquaintances in 1939, who suggested that career decision-making is an educational process that happens over a period of time (Ginsburg, Axelrad & Herma, 1951). The initial concept that was developed presumed that the concept of career development and career decision-making could be completed as early as childhood but was advanced to career choice as a lifelong developmental process in career decision-making (Ginzberg, 1972, 1984).

The theoretical approaches to career decision-making are used to inform psychological and social views of career choice and growth (Eryilmaz & Mutlu, 2017). While there are several career development theories, but for the present study, the psychological underpinnings of career decision-making were examined with a focus on Social Cognitive Theory (Bandura, 1977). Subsequently, social aspects of career decision-making were considered, concentrating particularly on Bronfenbrenner's ecological system theory (1979).

3.2.1 Social Cognitive Theory (SCT)

The Social Cognitive Theory (SCT) propounded in 1977 by Albert Bandura is a learning theory that is based on the ideas that individuals learn by observing others, and that individual thoughts are fundamental to understanding personality (Mccormick & Martinko, 2004). Additionally, this

theory presents a framework for envisaging, understanding and varying human behaviour (Richardson, 2012). Bandura's (1977) social cognitive theory's main supposition is that individual cognitive function depends on personal experiences which as a result could influence their attitude and growth including decision-making. SCT offers opportunities for social integration through inculcating expectations, self-efficacy and making use of observational learning and other reinforcements to attain behaviour change. Moreover, SCT concentrates on ways through which children and adults' function cognitively on personal experiences and how this cognition influences their behaviour and development. It is essential that individuals create a convenient environment and then continue to implement control over it, as every individual is merely partial product of their environments (Hoffnung et al., 2019). Individuals could influence what they become through the careful selection of environments; decisions made by individuals are influenced by their beliefs and abilities (Bandura, 1977). Bandura recommends a definite internal principle that consists of three interacting components, named "triadic" reciprocality. Green and Peil (2009) and Betz, (2007) substantiate Bandura's (1977) opinion and describes human behaviour as a harmonious, dynamic and mutual interaction of personal factors, behaviour and the environment. As presented in figure 3, a closer observation of these three basics, function in a mutual nature.

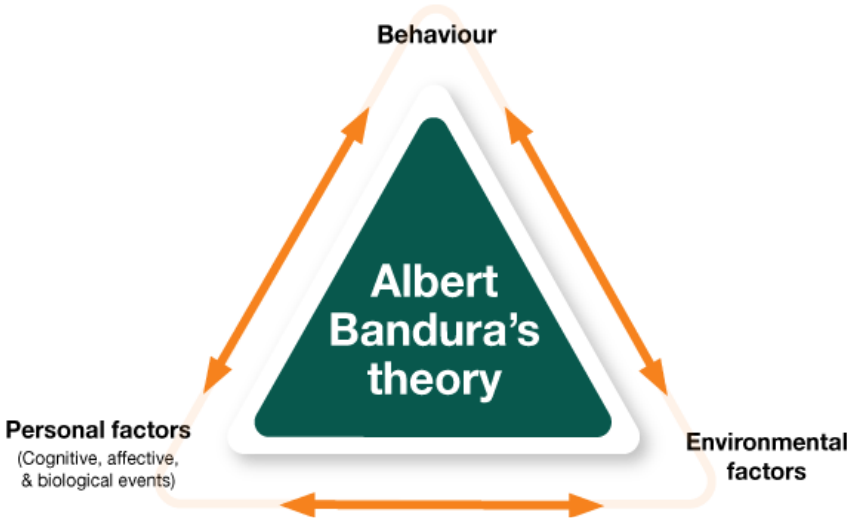


Figure 2: *Internal principle of social cognitive theory, Human Behaviour* (Bandura, 1977 p. 195).

The concept of self-efficacy in the Bandura theory initiated a descriptive model of human behaviour, through which self-efficacy affects predictable outcomes of behaviour (Bandura, 2006, 2004, 1998, 1995, 1986). Bandura (1977) first presented self-efficacy when he employed social cognitive theory to examine personality development (Baglama & Uzunboylu, 2017). Theoretically, personality develops as a result of individual learning experiences and the human cognitive process, and these learning experiences are influenced by the interaction of three key components (Baglama & Uzunboylu, 2017). These three key factors are: individual factors, which refer to behaviour; environmental factors, which deal with the external features related to an individual's learning experience; and individual factors, which refer to behaviour. The final factor, psychological factors, refers to cognitive processes associated with ways in which individuals learn through the products of the interaction between individual and environmental factors, as it influences their perceptions of learning experiences and individual approach to problem-solving. Bandura (1977) highlighted the significance of human cognitive process and instituted aspects of personality that develop as a consequence of individual's learning experiences. One of the principal features of Bandura's (1977) model is the projection of four sources of efficacy information, or learning experiences, resulting in the improvement of self-efficacy expectations which include self-regulations (self-esteem, self-punishment, and self-efficacy) (Mark & Campbell, 2011).

However, in as much as all of these influences are regarded as essential; the concept of self-efficacy has been considered as a significant personality factor that could influence career decision-making. The Social Cognitive Theory provides an understanding of how individual's perceived self-efficacy could be employed to determine particular behaviour and develop self-efficacy (Edward & Quinter, 2011). These involve individual capacity to accept or avoid certain responsibilities or situations, the level of their performance with particular situation or tasks, as well as their perseverance to prevail over impediments or disproving experiences. In a study to reinforce this argument, Bandura, (2001) reported that children are likely to base their career decision on their perceived professional self-efficacy rather than their academic performance. Similarly, Enache and Matei, (2017) also agree that, self-efficacy influence career decision making and how children select the career that appeals to their competents and proficiency. In agreement, Ormrod, (2014), indicated that learners from families with a high level of income seem to have

high career ambitions due to relevant academic assistance they receive from their parents, and that, those from disadvantaged backgrounds might struggle with the ability to develop the required career decision because of their perceived negative career self-efficacy.

According to Bandura (1977) personality which is one of the personal factors grows through individual knowledge and comprehension, and the human cognitive process, which could be affected by the interaction among individual, environmental and psychological factors (Baglama & Uzunboylu, 2017). The individual factors are associated with behaviour and the environmental factors are related to an individual's learning experience. Therefore, psychological factors are the cognitive processes linked with ways in which individuals learn through the products of the interaction that takes place between a person and their environment, as it influences their views of learning experiences and an individual's method to problem solving and decision-making. Bandura (1977) highlighted the significance of the human cognitive process and instituted parts of personality that grow as a consequence of individual learning experiences.

The Bandura Social Cognitive Theory was relevant to my study because it has a useful approach for developing an enhanced understanding of learners' career decision-making process. This theory permits a selection of personal and environmental factors related with career decision-making to be identified and presents a practical explanation of how these factors are connected with learners' career decision-making. Most importantly, Bandura's approach seems to be pertinent to a variety of diverse environments, as personal factors are combined with environmental factors to comprehend human behaviour. This theory provided an insight into how learners in township Secondary Schools develop career interest through interaction with the environment, psychological identity and self-efficacy. The SCT informed the present study because it forms the basis for psychological and social factors, which could influence individual career decision-making, such as personality, career interests, psychological identity, self-esteem, self-efficacy, and locus of control. These factors have a significant impact on how people think, behave, and respond when making career decisions. Bandura Social Cognitive Theory was employed in this study to comprehend how psychological factors influence Grade 12 learners' career decision-making in township Secondary Schools.

3.2.2 Ecological Systems Theory

Ecological Systems Theory was propounded by American psychologist, Urie Bronfrenbrenner in 1979. This theory is one of the most acknowledged enlightenments concerning the influence of social environments on human development. The Ecological Systems Theory argues that individual interacts with different environments all through their lifespan, which could influence their behaviour and decision-making in various ways. Bronfenbrenner (1979) holds that a person's development in life could be influenced by the environment. The Ecological systems theory illustrates how the inbuilt personality of children and their environment (family, peers/friends) connect to influence their maturity and growth. This theory affirms that the environment in which a person grows up, affects every stage of their lives. Consequently, social factors dominate an individual's way of thinking, their emotions, likes and dislikes and their attitudes (Bronfenbrenner, 2005). According to Bronfenbrenner (1979), children naturally find themselves entangled in different ecosystems, beginning from the most cherished home ecological system to the broader school system and to the more extensive system which comprises society and culture. Every part of this ecological systems theory unavoidably interacts with and influences one another in variety of ways that affects children's lives (Vandell, Larson, Mahoney & Watts, 2015).

As mentioned earlier, Bronfenbrenner's theory (1979) emphasizes human development and monitors an individual's growth into a completely capable member of the society. Consequently, it is a developmental psychology theory and has also been acknowledged as the theory of socialization (Bronfenbrenner & Morris, 2006). Many practitioners including researchers have shown interest in the prospects and risks linked with different factors that could influence learners' career decision-making. Much research on career decision-making has utilized ecological systems theory to understand how different activities promote positive influence and healthy development among young adults from different backgrounds (Peppler, 2017). Bronfenbrenner's (1979) ecological model classifies frameworks of development into five different levels of external influence. These levels are classified from the closest level to the most extensive. Since the five systems are interrelated, the influence of one system on a child's development is dependent on its interaction with the remaining systems (Bronfenbrenner, 2002). Consequently, a child's social role could change if there is a change within one of the systems. The systems are arranged in the order based on the influence they have on a child; as presented in figure 4.

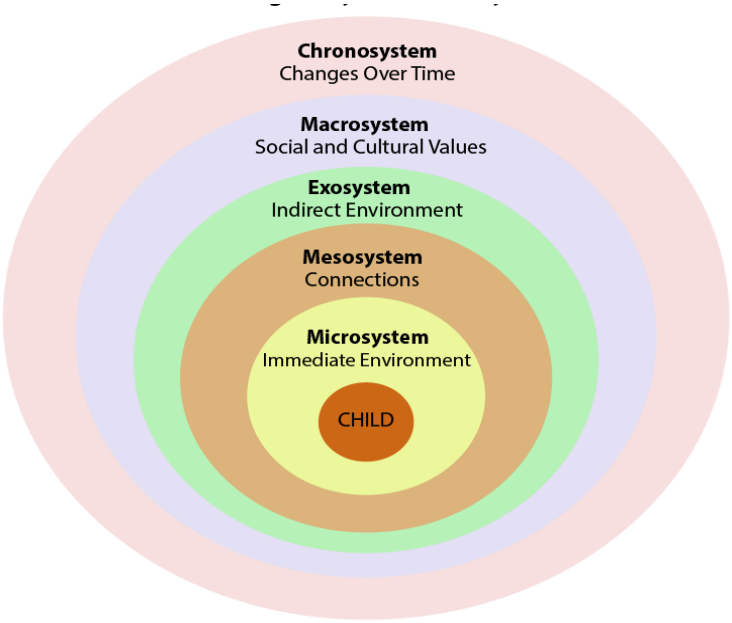


Figure 3: *Brofenbrenner's Ecological Systems Theory* (Bronfenbrenner, 1979)

Bronfenbrenner (1979) reiterates that the environmental structure influences children from the beginning to the slightest detail, from the immediate environment (Micro-system), Connections (Meso-system), indirect environment (Exo-systems), social and cultural environment (Macro-system) to changes experienced by individuals over time (Chrono-system). The ecological systems theory made a clear distinction between micro, meso, exo, maxo, and chrono systems.

- ***Micro-system***

The Bronfenbrenner's theory proposes that the micro-system is the smallest and is the most immediate environmental group that has close access to the child. As such, the micro-system includes family (daily home), school, peer group and community environment of the child. The interaction between this system and a child's development is evident, though the influence can happen from any directions within the micro-system, which naturally involves personal interactions with members of the family, classmates, teachers, and caregivers as their interaction with the child affects his/her growth (Bronfenbrenner & Morris, 2006). However, parental beliefs undoubtedly affect the child's personality, decision-making and who the child will become in the future. Nevertheless, it is also possible for the child to change the beliefs of their family members, as similar things occur at school and to every member in the micro-system (Peppler, 2017).

Similarly, this will depend on children's reaction to members in their micro-system as this will invariably advance children's better developments. According to the theory, it is plausible for siblings who reside in the same ecological system to experience the environment differently (Bronfenbrenner, 2005). Consequently, it is practicable for two siblings to experience development and progress in the same environment in different ways. Every child's specific personality traits, for example temperament which is influenced by distinct genetic and biological factors, eventually determine the treatment the child receives from others. In the present study, the micro system that could influence career decision-making are parents and siblings.

- ***Meso-system***

The Meso-System is the second level and it involves the relationships between members in the first system, the relationship between parent and teacher has a direct influence on the child's decision-making (Paquette & Ryan, 2001). The meso-system encompasses the connection and developments happening in the surroundings of a person undergoing development. Bronfenbrenner, (2002) defines meso-system as a layer that encourages relationship between the Microsystems. Consequently, the meso-system covers various interactions in the Microsystems in which children reside, in essence, a system of Microsystems encompasses interaction between home and school, peer group and family and family and community. For example, parent's negative attitude towards their children's peers and friends will likely result in negative development and invariably affect children's decision-making. In the present study, the meso system that could influence career decision making are parents, teachers, peers and friends.

- ***Exo-system***

This is the third level, and it includes factors that influence a child's life. Although, the rudiments of this system are not directly link to the child, such as, the parents place of work. As this will influence the parents' point of view, available free time and the general well-being, so indirectly the place of work can influence the child's development as well. The exo-system concerns the connections that subsist in the environment, which may not have direct link to the development of a child but still influence the child in one way or the other. According to Bronfenbrenner's (1979) findings, a child extended family and the neighborhood the child lives in may affect their life

pattern and developments. In the present study, the exo-system that could influence career decision-making are subject influence, parental level of education and family income.

- ***Macro-system***

The macro-system is the largest and most outlying connection of people and places to a child that still possess a considerable influence on the child. This ecological system comprises the child's cultural patterns and principles, particularly the prevailing beliefs and inspirations, as well as economic and political systems. In addition, this ecological system encompasses those cultural components that influence the child and everyone in the environment (Mark, Donaldson & Campbell, 2011). The macro-system affects a child's development because it establishes the manner through which other systems can convey their messages in the environment. Once more, this is an indirect influence that affects development due to the fact that it transforms groups that directly have an effect on the child (Mark et al., 2011). In the present study, the macro-system that could influence career decision making are peers/friends and support from neighbours.

- ***Chrono-system***

This last system is chrono-system and was added to ecological systems theory after the four systems has been developed by Bronfenbranner. This last system refers to the phase of life that an individual finds themselves in as a result of the circumstances that surround them. For example, an individual deals with the loss of loved ones differently based on their life stages; the effects of the loss will have a different impact on an elderly person as against a young person (Bronfenbrenner, 2005). The Bronfenbrenner's ecological systems theory indicates that chrono-system combined the functional aspect of time, which indicates the influence of change and dependability in a child's environment. The chrono-system might involve a change in parents' employment status, family structure and massive society changes such as conflict and economic succession. In the present study, the chrono-system that could influence career decision-making are TV/media and role models.

This theory has been able to demonstrate the variety of interconnected influences on children's development based on the consciousness of the environment in which children are located, which could sensitise us to divergence on how children might behave in different environments (Soto,

2016). Bronfenbrenner's ecological systems theory can be applied in many fields of study as one of the best explanations concerning the influence of social environment on an individual's life. From Brofenbrenner's Ecological Systems Theory, social approaches aim to create a career decision-making process that allows people to weigh the importance of a range of factors before making a choice. Therefore, this theory was relevant to the present study as social factors studied were family-related, school-related, and community-related which all fall in the respective systems as discussed. School-related factors include teachers, friends/peers, and subject influence, whereas family-related factors include siblings and parental influence. Neighbourly support, media impact, and role model influence are all examples of community-related factors, which could influence career decision-making among learners.

3.3 Application of the theories to the present study

The two theories discussed above are pertinent to this study as they permit different factors related to an individual's career decision-making to be explored and could be adapted to elucidate how individuals develop coherent decision towards their career choices. The theoretical foundation was employed to attain an improved knowledge of the interconnectivity of the various factors associated with career decision-making, especially among secondary school learners. As can be seen, these theories have been employed in career decision-making research in a range of diverse approaches. Every theory is primarily helpful to recognize various factors related to individuals' career decision-making. Consequently, psychological related theories establish the significance of individual factors, such as; personality types, locus of control, self-efficacy, self-esteem, psychological identity and career interest and how these factors influence career decision-making. Social related theories identify a broader range of factors connected with individuals' career decision-making, such as; family related factors, school related factors and community related factors. All these specify how these factors are connected and influence individuals' career decision-making processes. Therefore, combining these theories with each other presents enhanced understanding of ways in which individuals make their career decisions.

While Bronfenbrenner's theory facilitates career decision-making by matching individual personalities and work environments, Bandura's cognitive theory focuses on the congruence between an individual's cognition, their social experiences, and their environments. As there could be changes in the learner's role if there are any changes within the environment, for example, the

presence of career guidance as part of the learner's environment could lead to an improved understanding of the environment and invariably improve career decision-making. Bandura's theory highlights the involvement of family and school as influences on learner's career decision-making to follow their career paths, as personality and family values influence parental roles and everyone in the environment. Subsequently, these factors influence learners' career intentions and decisions. Explicitly, the Ecological Systems Theory is essential because it describes how psychological and social based theories can be incorporated or engaged together with one another to provide an improved understanding of individuals' career decision-making.

For instance, Bandura's Social Cognitive Theory emphasizes the influence of self-efficacy on career interests and highlights the necessity for congruence among individual personality and work environments. This theory is also applicable to Grade 12 learners who are in the process of deciding on a career path to follow after school. Therefore, it can predict the probability of learners choosing a specific career option after exploring their career interest together with their personality while observing their environment. The theory has, however, predicted how individuals develop interest in a particular career option by concentrating on the influence of family background during learners' career decision-making. Consequently, family background could affect learners' personality as well as their career decision-making pattern. Furthermore, the Social Cognitive Theory argues that families, teachers, and peers are vitally influential in the enhancement of self-efficacy beliefs. In addition, it is expected that the application of Bandura's Social Cognitive theory and Bronfenbrenner's ecological systems theory would provide a comprehensive understanding of psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng, South Africa.

The Ecological System Theory of Bronfenbrenner is based on the dynamic interactions between environments and developing children. Based on the awareness of the environment in which children are positioned, the theory illustrates the range of interconnected influences on children's development and how children may behave in various environments. Bronfenbrenner was aware of the many facets of a child's life that interact with and influence them as they develop and are a feature of the environments that children really live and grow up in. However, this study has contributed to the critique of Bronfenbrenner's (1979) Ecological Systems Theory. This is because the study found that learners were motivated to achieve their goal by focusing on their academic

performance and were committed to giving it their all in the classroom, regardless of their background and environment. The Ecological Systems Theory of Bronfenbrenner (1979), which asserts that an individual interacts with various environments throughout their lifespan and that these interactions may have a range of consequences on their behaviour and decision-making, is in conflict with this conclusion.

3.4 Conclusion of the chapter

This chapter presented the theories that underpinned this study. The theoretical framework focused on the career development theories which inculcate individual learner's personality, interest and learners' social influences as they impact career decision-making. To achieve this, the Bandura's Social Cognitive Theory (SCT) and Bronfenbrenner Ecological Systems Theory (EST) were employed to provide a theoretical framework for examining the influence of psycho-social factors on learners' career decision-making process in township Secondary Schools. The next chapter, chapter four introduces the research methodology for this study.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

This chapter presents the research design and methodology that underpinned this study. Firstly, the research paradigm and philosophical assumptions, followed by description of research site, sample and sampling method, instruments for data collection and the procedures for data collection were explained. Secondly, methods of data analysis were discussed and lastly, as ethical conduct inculcates all aspects of a study, the ethical considerations for this study were presented.

4.2 The research paradigm/philosophical assumptions

The word "paradigm" was originally used by Thomas Kuhn (1970), who defines paradigm as a set of generalities, viewpoints, and principles of a community of experts. It is also regarded as a worldview, which may or may not be connected to a particular discipline or community of intellectuals but which advocates the collective beliefs and values of researchers (Creswell & Plano Clark, 2018). Therefore, the formation of knowledge build-up or paradigms could be considered as the belief methods that researchers share, which contribute to the type of knowledge required and how gathered data are construed (Creswell, 2015). Research paradigm is made up of the following elements, axiology, methodology, ontology and epistemology. This is as presented diagrammatically in Figure 4.

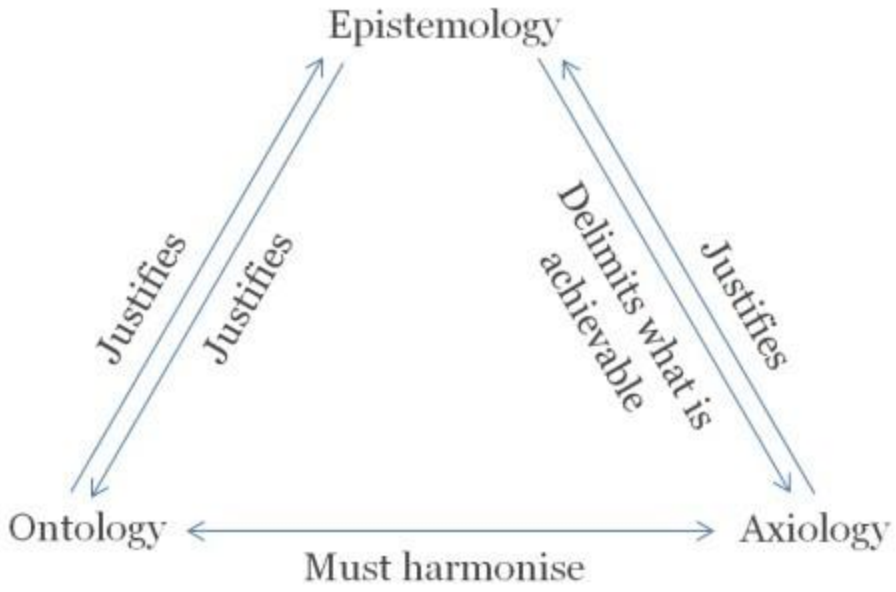


Figure 4: *Paradigmatic commitments* adapted from Patterson &Williams (1998).

4.2.1 Axiology

According to Cyrene (2017), axiology refers to learning about values or more effectively, theory in the nature of values, which indicates what is good or bad or what can be found worthy in life. In addition, axiology integrates theory of morality (ethics) and theory of taste and beauty (aesthetics), which deal with the "question of what ought to be". The core focus of axiology in a research process is what makes a good researcher and the valuable science of every research conducted (Cyrene, 2017). Using philosophical insights from quantitative research to represent advanced communication about science and the natural world, which has imparted a normative construction of scientific research as philosophical obligations that involve conjectures about the nature of reality or ontology, the natural world of what is known or epistemology, what we value or axiology and the strategy and validations in developing a specific type of knowledge or methodology as connected to individual methods. Axiology in qualitative research ensures that values in the study are known and the research reports the values, the predispositions, and the nature of the gathered information from the field (Li, 2016).

Pragmatism focuses on the notion of what works, which refer mostly to the pragmatism theory of truth (Creswell, 2014). Pragmatism is basically directed towards finding solution to realistic

problems that exist in the real world compared with building postulations concerning the nature of knowledge the mixed methods research design happens to be a way of using the pragmatic philosophy (Biddle & Schafft, 2015). This implies that pragmatism as a stance leads in research procedure (Mitchell, 2018). Additionally, the notion of what works is also significant to the methods of research adopted when carrying out the research process (Barnes, 2019). Therefore, quantitative and qualitative research methods are incorporated in this study as a mixed method research design to answer the research questions. The procedures employed implemented involved quantitative and qualitative components concurrently with the same sample.

4.2.2 Methodology

Methodology is described as the approach or strategy, which follows selection and application of particular research methods chosen by the researcher (Guba & Lincoln, 1994). Every paradigm is founded upon individual ontological and epistemological inferences. The philosophical reinforcements of every paradigm can by no means be verified or unverified, since all inferences are assumptions (Deane, 2018). Various paradigms intrinsically include conflicting ontological and epistemological perspectives; hence, they possess conflicting inferences of reality and understanding, which underpin their specific research approach (Patterson & Williams, 1998). This is demonstrated in their methodology. The present study employed a mixed methods design, where data were collected using the same sample to gather both quantitative and qualitative data (questionnaires and semi-structured interviews) and an analysis of data was carried-out independently but concurrently (Creswell & Plano Clark, 2011). The results from the analysed quantitative and qualitative data were incorporated during the interpretation stage with the same priority given to the two forms of research data collected

From the positivists' perspective, methodology is intended for illustrating relationships, while making an effort to recognize causes which control outcomes (Creswell, 2013). The objective of the positivist is to invent laws that could generate a basis for prediction and generalisation, which permits a deductive approach to be undertaken. As experienced in quantitative research, correlation and experimentation are employed to decrease complicated connections or interactions among constituent parts (Scott & Usher, 2010). Positivists view methodology as neutral and unbiased; consequently, the knowledge acquired is value neutral. Similarly, post-positivists seek to comprehend causal relationships and therefore, result in experimentation and correlational

studies. In this study, the researcher aims to gain a better knowledge of the quantitative and qualitative pragmatic perspectives in order to combine their strengths for the benefit of the research project as a whole.

The methodological position of interpretivism is planned at understanding occurrence from an individual perspective, considering interaction between individuals and the chronological and cultural contexts which people occupy (Sharma, 2010). Methodology involves in-depth study of procedures or processes over an extended period of time (case studies), the study of direct experience without allowing the interference of existing presuppositions (phenomenology), and the study of cultural groups over a protracted period (ethnography) (Sharma, 2010). According to Guba and Lincoln (1994), participants are relied upon in order to elicit and understand individual constructs through interaction between participants and researchers. This assists the researchers to uncover new layers of understanding as phenomena are richly described without being reduced to simplistic interpretations. Instead of restricting meanings into a few categories or ideas, the researcher in this study looks for complexity in viewpoints. As a result, research questions are broad and generic in nature, allowing participants to make their own interpretations.

Critical methodology is applicable in cross-examining values and inferences, revealing supremacy and unfairness, demanding conservative societal structures and is involved in social accomplishment (Biedenbach & Jacobsson, 2016). Its purpose is to liberate the disempowered, researchers support their philosophy as they acknowledge that all research methodology are not value free (Carnaghan, 2013). Therefore, the position of a critical researcher is frequently predetermined; finding is the process while change is the fundamental objective of research that involves making individuals critically aware of their circumstance through a frequent action that is well versed by reflection (Li, 2016). The concurrent triangulation method was used to develop a full understanding of the psychosocial factors influencing learner's career decision-making. Additionally, the two types of data that were gathered assisted to cross validate and substantiate the findings from this study (Creswell, 2013). Transformation is carried out with participants in a research study; consequently, participants are involved in the research procedures. Therefore, this study explored participants' knowledge and understanding of factors, which influence their career decision-making process, with the use of questionnaires and semi-structured interviews.

4.2.3 Ontology and Epistemology

Ontology is the study of what is known about the social world and its nature. Based on presumptions about how the world works, one supports an ontological perspective (Willig, 2013). A branch of philosophy known as epistemology examines knowledge theory (Willig, 2013). It addresses issues like how we may learn about reality and what forms the basis of our knowledge, as well as various methods of knowing and learning about the world (Ritchie, Lewis, Mcnaughton Nicholls & Ormston, 2014; Willig, 2013). Researchers' opinions on what can be known and how to go about achieving such understanding are frequently the basis for their thoughts about the research questions to set and the methods to address these questions (Creswell & Plano Clerk, 2018). These positions are essential elements of researchers' beliefs and what is regarded as reality in the world or ontology and the natural world of what we know or epistemology as shown in their worldviews (Creswell & Plano Clark, 2018). Quantitative research is related to the ontological stance of the social world that is self-sufficient, predetermined, external or independently real, whereas qualitative research is associated with the beliefs of a world that is created, individually experienced and the results of an individual idea as uttered through conversation (Biedenbach & Jacobsson, 2016).

The constructivist proffers different knowledge to positivist and post-positivist perspectives of improving knowledge. Inferences related to the social constructivism assert that individuals inquire about their world, which makes them develop personal and various awareness of their environment (Creswell & Plano Clark, 2018). Therefore, researchers search for the difficulty of opinions as against confining understandings into smaller groups or ideas. Hence, this research will pose questions that are extensive and all-encompassing to allow participants to create personal understanding of a situation (Creswell & Plano Clark, 2018). Pragmatism in its numerous ways, derived from the effort of Pierce, James, Mead and Dewey (Creswell, 2014). An epistemological stance in research, establishes the knowledge, which develops from actions, circumstances and conditions rather than from experiences like post-positivism (Hall, 2013). The challenge is with relevance and answers to difficult situations, as the problem is very significant to the selected methods (Fetters & Molina-Azorin, 2017). In addition, pragmatism is founded on the idea that a wrong division subsists between quantitative and qualitative research and that researchers have to maximize the use of both research paradigms (Cameron, 2011). The concurrent mixed methods

research strategies that were employed for this study provided substantiated and well-validated findings, though requires immense effort and expertise from the researcher, to sufficiently employ two different methods at the same time and comparing the findings of two types of analysed data, of different forms, may also be difficult (Creswell & Plano Clark, 2018). Harmonising the quantitative and qualitative research paradigms bring about the leading question of researchers' development relating to paradigms at the points of epistemology and ontology (Biedenbach & Jacobsson, 2016). To answer this question, some researchers claim that there is no predictable correlation between ontological and epistemological deductions on the one hand and procedural dedications on the other (Guba & Lincoln, 1994; Kincheloe, 2008; Biedenbach & Jacobsson, 2016). Creswell, (2015) clarifies that the links copied between ontology and epistemology are at the best propensities rather than ultimate links. Moreover, it is argued that research methods should be observed as independent from ontological and epistemological obligations (Carnaghan, 2013). My intention was to choose research methods that would be most suitable to obtain answers to the research questions using the appropriate research methodology for this study. Consequently, qualitative data was collected using online interviews (Zoom/WhatsApp) with Grade 12 learners and quantitative data were collected using a number of validated scales (big five personality inventory, general self-efficacy scale, career interest scale, locus of control questionnaire, peer influence scale, teacher's influence scale, influence of older siblings scale, Rosenberg's self-esteem scale, psychological identity scale and career decision-making questionnaire) with the same learners. The researcher compared the two types of data (quantitative and qualitative) to observe if there is a relationship between what learners perceived as an influence and what actually influenced their career decision-making. Data are compared for complementarity, which comprises looking for ways to explain, improve, illustrate, and interpret the results of one approach with the results of another. To assess how qualitative data aided in the explanation of quantitative data.

4.3 Research methodology

This section explains and clarifies why mixed methods research was chosen as the best suitable approach for this investigation. In a qualitative study, the researcher concentrates on analysing the participants' experiences in their natural settings (Neuman, 2014) . Therefore, an explanation of the research sites employed in this study was given. Participants' selection, data collection

techniques, data analysis, ethical issues, and the study's contributions were all covered in the discussion.

4.3.1 The mixed methods research design

In the early 1960, Anthropologists and Sociologists introduced the concept of mixing diverse research methods, and triangulation was the name given to this discovery (Titans, Waiters & Heilbron, 2019). However, interest in mixed methods research only began in the 1990s and over the past 20 years mixed methods has gained recognition as a scientific research approach. It is important for the researcher to make an appropriate decision regarding the research design suitable for this study as well as the methods that are employed for data gathering and data analysis (Creswell, 2013). Because of the nature of this study a mixed methods approach was adopted, as this is considered most appropriate for this study. A mixed methods research design is a form of research which allows the researcher the use of both qualitative and quantitative components (data collection and analysis) in a single study to draw inferences for the intentions of extensiveness and intensity of understanding and substantiation (Creswell & Plano Clark, 2018). The choice of research methods cannot be separated from researchers' theoretical concerns or commencements of knowledge development and acquisition (Schoomenboom, 2016). The choice of mixed methods for this study is partially initiated by a number of influences in a supplementary condition that support the mixing of qualitative and quantitative research methods for this study. Creswell and Plano Clark, (2018) uphold that despite logical concepts, which are mostly embedded in research; they still affect the actual research procedure. The knowledge development or the worldviews could be acknowledged as the ideas that researchers share, which describes the acquired knowledge and how facts are substantiated (Morgan, 2014).

The mixed methods approach was developed in the social and behavioural sciences during the period 1985 to 1990 (Titans, et al., 2019), and it could be described as the gathering or the analysis of both qualitative and quantitative data in a single study which involves the collection of data concurrently or sequentially with given precedence to integrate data collected at one level during the research procedure (Creswell & Plano-Clark, 2018). Creswell (2017) suggests that it is important for a researcher to be aware of the methods intended in a given study and the types of research questions prior to embarking upon a mixed methods study. However, Creswell (2017)

recommends that the databases should be separated and that the researcher should ascertain whether the research problem or question warrants a mixed methods approach.

Since the advice is that the choice of a method should be based on the problem, it begs the question when is a mixed method suitable for a solution to a problem or to answer a research question? It is essential for a researcher to ascertain what the intent of the study is. In addition, it is imperative to know whether the researcher has a leaning towards qualitative or quantitative research and this is identified from the way the intent is stated. In identifying the key words for the study, it illuminated the mixed methods design that was used, additionally the key words assisted the researcher to pay attention to the discipline, field and background where the mixed methods were suitable. The key words also assisted in highlighting the requisite skills to conduct mixed methods research. Having established the intent of the study, it is incumbent upon the researcher to decide on the type of the qualitative and quantitative data that was necessary to address the intent of the study. Mixed methods approach is becoming prevalent in social and behavioural sciences where researchers gather, analysed and incorporate both qualitative and quantitative methods in one study in order to answer the research questions (Creswell, 2017). The advent of mixed methods approach provides different research paradigms, which combines, incorporates or amalgamates qualitative and quantitative methods (Neuman, 2014). There is considerable debate around qualitative and quantitative methods and the combination of both. Depending on the type of information required it is essential to select the best research design when conducting a research study (Hesse-Biber, & Leavy, 2011). The current study employed a mixed methods research design to answer the research questions and achieve the objectives. There are several designs within the mixed methods design, each with its own merits and demerits. In the present study, the concurrent triangulation research design was adopted.

4.3.2 Concurrent Triangulation Design

In a research process, triangulation is presented as one of the major goals of mixed methods research (Bentahar & Cameron, 2015). Creswell and Plano Clark (2018) confirm that triangulation is the combination of different research approaches in the study of a similar phenomenon. In addition, it gives the researcher the opportunity to substantiate and sustain the findings of the research in relation to the same phenomenon using diverse methods to enhance internal and

external validity in the research process (Bentahar & Cameron, 2015). The Triangulation Design is a one-segment design, which allows researchers to execute the quantitative and qualitative methods using the same period of time and with equivalent influence. This design is referred to as a concurrent triangulation because of the single-phase timing required for data collection (Creswell, Plano Clark, Gutmann & Hanson, 2003). This design entails the simultaneous, but independent, gathering and analysis of quantitative and qualitative data, for better understanding of the research problem by the researcher. The researcher attempts to combine the two kind of data, usually by taking the independent results together in the interpretation or by converting data to assist the two kinds of data during the analysis process.

Concurrent triangulation strategy encompasses two data collection stages; one stage should not be given precedence over the other but should be either concurrent or sequential, during the interpretation stage, data may be combined (Bentahar & Cameron, 2015). When interpreting the data, it might elicit an absence convergence or conversely it might support knowledge assertions, consequently, this data combination could also take place during the analysis process (Creswell & Plano Clark, 2018). One of the strengths that researchers recognise is using a limited data collection period as opposed to sequential method is the advantage of a concurrent triangulation approach is to use both quantitative and qualitative methods. However, the weakness is that it requires considerable skill and knowledge as well as endeavours to study a subject using two diverse methods (Schoonenboom & Johnson, 2017). In addition, difficulty may arise when attempting to evaluate diverse groups of data and to solve inconsistencies if any are detected. The characteristic of concurrent triangulation is when two or more research methods are employed to validate, cross validate or verify results from a study. Data gathering is concurrent and the purpose of a mixed method is to obviate weaknesses as a result of using a single method. The use of concurrent triangulation is complimentary in certain cases and not complimentary in others (Bentahar & Cameron, 2015).

The most significant justification for the adoption of mixed methods design is for the complementarity of several methods, in order to extend the range of investigation, as well as the breadth and depth of the research. Therefore, the findings from one method or technique would assist to improve or develop the other method or technique. On the one hand, quantitative methods are extremely constrained because of the statistical testing requirements with restricted number of

variables that can be evaluated. On the other hand, qualitative methods are resource demanding, the intensity and extensiveness of the data collected is characteristically huge, allowing several analyses of procedures and interactions. Hence, the adoption of quantitative and qualitative methods gives more insights and experience that can be overlooked if only one method is adopted.

In this study, concurrent triangulation research design was adopted, with quantitative and qualitative methods applied concurrently with equivalent importance and reference attached to both components. Therefore, the adoption of the diverse measuring tools allowed the researcher to offer detailed "depiction" of the psycho-social factors influencing the career choice decision-making of Grade 12 learners in Township secondary schools in Gauteng, South Africa. The concurrent triangulation model is depicted in Figure 5:

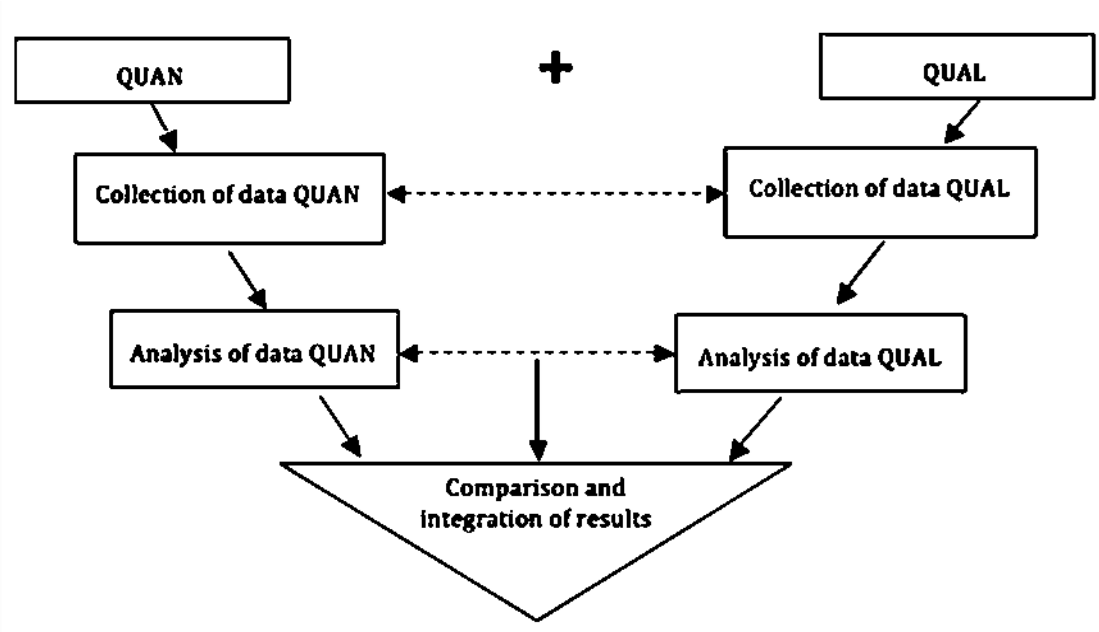


Figure 5: *Concurrent Triangulation model* (Creswell, 2003)

The model in Figure 5 presents the analysis of how quantitative and qualitative data were collected and analysed simultaneously. According to Creswell (2003) the two methods should have equal priority, but in practise either the quantitative or qualitative approach may be given precedence. The combination of approaches known as triangulation to study the same occurrence, was adopted to deal with both quantitative and qualitative data (Creswell & Plano Clark, 2017). Triangulation

assists in attaining contrasting yet complimentary information on the same subject, which gives better understanding of the research problem and ultimately put together the strengths of quantitative and qualitative methods (Creswell, 2009). The amalgamation of both quantitative and qualitative happened at the interpretation or discussion stage, which is actually to merge the data collected, integrate or compare the findings of two data alongside in a discussion. This research design helped the researcher to expand quantitative findings with qualitative data to make it richer and, consequently, gives the researcher more confidence about the results (Creswell, 2003). This method produced a well-supported and corroborated results, additionally, the concurrent data collection yields a shorter data collection period compare to sequential approaches (Creswell, 2009).

4.4 Research sites

A site is a location in which procedures or activities occur, a socially distinct territory with changing boundaries (Neuman, 2014). The sites where this study was conducted are six Township Secondary Schools in the Springs, Gauteng District, Ekurhuleni area, South Africa. When selecting sites for the present research, three important aspects considered were: richness of data, unfamiliarity and suitability of the site. Rich data refers to data that provided intense information. The issue of unfamiliarity refers to what knowledge the researcher has about the sites, the reason for unfamiliarity is to prevent bias (Neuman, 2014). With reference to the suitability of the sites, it is essential that the selected sites should be appropriate for the type of investigation conducted.

One of the largest municipalities in the vast Gauteng Province is the Ekurhuleni Metropolitan Municipality, with Germiston to the south-west and Springs and Nigel to the east. In both the province of Gauteng and the entire country, it has one of the densest populations. Compared to many other tiny countries on the continent, the region's diverse economy is well-structured. It also makes up nearly a quarter of Gauteng's economy, which in turn accounts for more than a third of the country's Gross Domestic Product (GDP). Ekurhuleni, known as "Africa's Workshop," is home to a large number of manufacturing firms that produce goods and commodities (Ajayi, 2018).
Springs is a settlement on the East Rand, 50 kilometres to the east of Johannesburg, in the Gauteng province of South Africa. The town's name comes from the region's vast quantity of natural springs. Springs has a population of about 200,000 and is governed by Ekurhuleni (Statistics South Africa, 2016). In the area of Springs, coal was found in 1887, and gold was found not long after.

In 1904, a village grew here, and in 1908, gold mining started. With eight gold mines in the area, Springs in the late 1930s became the only and largest gold-producing region in the world (The Local Government Handbook, 2010). As a result, a number of Townships developed in the environment, because of job opportunities for the low-income earners. The majority of Secondary Schools in this area are in quintiles 1 and 2, with an average National Senior Certificate Examination performance of 65 percent (DBE, 2015). Therefore, this makes it appropriate for this study because of the number of townships in this area, as this study investigated the psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools.

4.5 Description of schools

The six schools selected for this study were township Secondary Schools in Gauteng East District, Springs, South Africa, with similar characteristics. These six schools are on quintile levels 1 and 2 as discussed in chapter one and are non-fee-paying schools. The schools provide meals for learners because of their socio-economic backgrounds. These schools comprise regulation brick classrooms and to accommodate the overflow of learners the Department of Education provides mobile classrooms. The schools have controlled access with the security guard at the gates. Covid-19 presented a stumbling block as it was not possible to conduct the interviews face to face; consequently, it was necessary to conduct the interviews online.

4.6 Research population

A population in research denotes the whole group of people or objects that meets the chosen set of criteria created by the researcher (Neuman, 2014). It also denotes all potential participants' or items that could be included in a research sample. In addition, population is the broad group of individuals to whom the result of the study could be beneficial (Creswell 2014). Neuman (2014) asserts that population represents every members of any single group of individuals or the entire class of individuals that a certain study is focusing on. Population also refers to individuals located in a particular place or group that the researcher intends to generalise the findings of the research (Kumar, 2011). The exact population depends on the scope of the study and for this study; the target population comprised all the 720 Grade 12 learners at the selected six Township Secondary Schools in Gauteng East District.

Table 1: *Study population of grade 12 learners*

Township Schools	Study Population of Grade 12 learners
School A	120
School B	120
School C	120
School D	120
School E	120
School F	120
Total	720

Source: Author (2022)

From the population of Township Secondary Schools in Gauteng East District, six schools were selected. The grade 12 learners have been chosen for this study because they are at the threshold of career decision- making which is the focus of this research. Therefore, it is believed that they were rich source of information for this study in order to determine the psycho-social factors influencing their career decision-making.

4.7 Sample size and sampling methods

Sampling is a method used to choose participants from the broader population (Morgan, 2014). The sample is the group of people who in reality are eligible to participate in the study, these are the people who were interviewed or participate in the focus group discussions in a qualitative study or the participants in a quantitative study (Polit & Beck, 2014). The sample generally consists of a subset of the population, which is drawn from the total population (Polit & Beck, 2014).

4.7.1: Demographic Information

The purpose of the study was to look at the participants' backgrounds, who were learners in Grade 12. To assess whether they were adequately representative in terms of their demographic traits to permit the generalisation of the study's findings, this was deemed necessary. The demographic data examined included the gender distribution, age, and level of formal education of the respondents' parents.

4.7.1.1 Gender of the Respondents

The study sought to explore the gender of the grade 12 learners. Information on gender was considered important to this research because it is anticipated that responses of the learners may vary given their gender. Figure 6 shows the summary of the gender distribution among the Grade 12 learners who were sampled for the study.

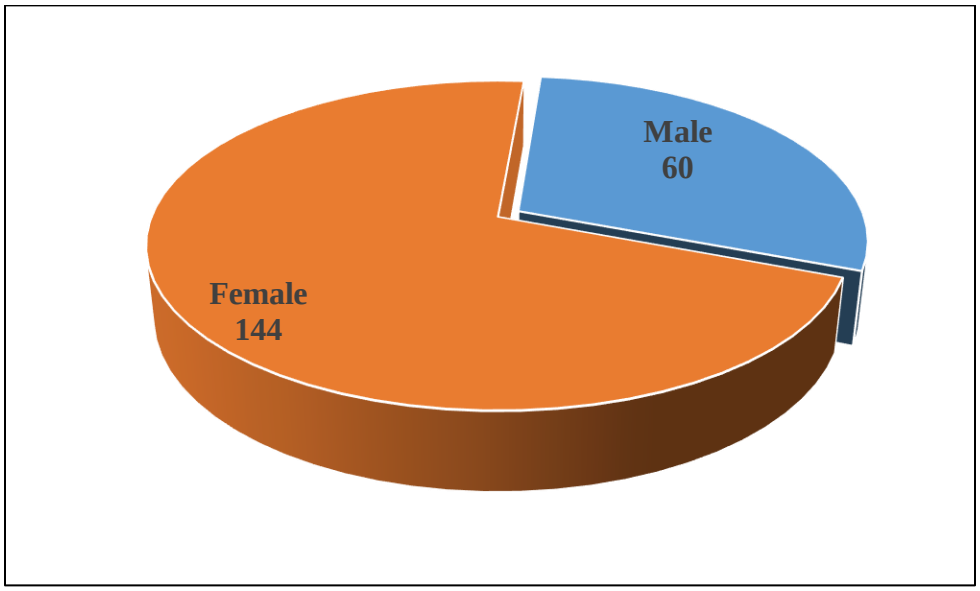


Figure 6: *Gender Distribution of the Learner Respondents*
Source: Primary data (2021)

The gender distribution shown in Figure 6 revealed that there was a considerable gender gap among the respondents, with women outnumbering men (70.6%) in township secondary schools in the Ekurhuleni East division of Gauteng, South Africa. Given that both genders had an equal chance to participate in the sampling processes used in this study, it can be deduced that female learners predominate at secondary schools in the Ekurhuleni East district of Gauteng, South Africa. Therefore, because both genders were included in the study, it can be assumed that the findings apply to a larger population as both genders' perspectives were represented. This is because each gender can contribute something unique to research that the other gender cannot.

4.7.1.2 Age of the Respondents

The age of the respondents was investigated since it was thought that this information would be crucial to the study because it would increase the reliability of the respondents' responses. Age was

defined as the rate at which a response ages and becomes more mature. It was helpful to add a survey age question since it was anticipated that it might affect respondents' career decisions. This is because different age groups have varied life experiences, and people's likes and behaviours change as they age. It is generally accepted that maturity level rises with age and that there is a direct relationship between age and subsequent ideas and decisions. Table 2 presents learners' age distribution.

Table 2: *Respondents' Age* **(n=204)**

Age group	Frequency	Percent
Below 16 Years	7	3.4
17 – 18 Years	159	77.9
19 Years and Above	38	18.6
Total	**204**	**100.0**

Source: Primary data (2021)

On their ages, the results of the study presented in Table 2 established that the modal (77.9%) age of learners who were surveyed was in the range of 17-18 years. This was followed by the age range of 19 years and above at 18.6%. Only 3.4% of them were under 16 years of age. From this finding, it can be established that a significant majority of the 12th Grade learners was within an stretched age range of 17 and 19. This is justified because it is at this age that most learners are expected to be at the verge of completion of their secondary education. Nonetheless, the fact that respondents with varied ages were represented in the study implies that the results of this study can be generalized across all ages of 12th Grade learners with very minimal precaution.

4.7.1.3: Respondent Parents' Education Level

Information on the level of education of the parent was necessary because it can inform the level of understanding of career choices. Parent's education level in this study is operationalized as the number of years spent by a parent in a formal education system. The career choice made by the 12th Grade learners was envisioned to vary with the varied level of education of the parents because parents have significant influence on the decisions their children make in life. Generally, the way

people understand different social constructs is dependent on their level of education. Table 3 presents a summary of parents' educational level.

Table 3: *Respondents' Educational Level Age* **(n=204)**

Level of education	Frequency	Percent
University level	14	6.9
College level	39	19.1
Secondary school level	144	70.6
Primary school level	4	2.0
No formal schooling	3	1.5
Total	**204**	**100.0**

Source: Primary data (2021)

It is evident from Table 3 that parental educational level varied from no formal education to university. However, the majority (70.6%) of the learners who took part in the survey had their parents at the secondary educational level, close to a fifth (19.1%) of the parents had college education, and those whose parents had primary education represented only 2.0% of the sampled learners. On the other hand, those learners whose parents have university education were 6.9% of the surveyed learners, while only 3.5% of the learners had their parents either having only primary school education or had no formal education at all. This finding suggests that a significant majority (96.6%) of the parents of the surveyed learners had at least secondary level of education; implying most of the learners who took part in the survey had parents with enough understanding and exposure on career choices. Nonetheless, use of parents with varied educational level implies that the results of this survey can easily be generalized to the whole target population of the study.

4.8 Quantitative sample

In quantitative studies, the aim is to measure variables and generalise results acquired from a selected sample from the entire population (Yin, 2018). Additionally, a sample that is similar to the population from which the sample was derived in a way that is essential for this research that is being conducted. The inspiration behind the findings of this study focused on a group larger than the sample from which the findings were produced. Quantitative researchers have a tendency to use sampling technique that supports theories of probability from mathematics, referred to as probability sampling. Probability sampling is a sampling method that gives every unit in a

population the probability of being selected (Yin, 2014). There are five different types of probability samples that researchers may employ. These are presented in table 4.

Table 4: *Types of Probability Samples*

Sample type	Description
Simple random	The researcher chooses components at random from the sample frame.
Systematic	Each kth element from the sampling frame is chosen by the researcher.
Stratified	The researcher creates subgroups before choosing components at random from each subgroup.
Cluster	The researcher randomly selects clusters, then selects objects from those groups.

In this study, the target population for the quantitative phase was 720 learner participants, 120 from each of the six schools that were selected, including males and females. The learners were selected from the Gauteng East District schools using the stratified random sampling technique. Stratification is simply the method of separating the population into smaller sub-groups depending on the factors that are linked to the factors being examined (Schoomenboom, 2016). Stratification was necessary for this kind of study because of the differences that arose in the number of participants for each selected school. In addition, stratification helped to achieve proportionate number of participants taking into consideration factors such as the gender. Therefore, this sampling technique was employed to make sure that each school is well represented in the sample size for this study (Creswell & Plano Clark, 2018).

One of the most popular methods for sample selection in quantitative study is the Krejcie and Morgan's (1970) sampling technique. In order to calculate the sample size for a given population, Krejcie and Morgan (1970) developed a table using a sample size blueprint for a predetermined population. Consequently, the determined sample for this study was 260 learners based on the population (720) as projected by Krejcie and Morgan (1970).

4.9 Qualitative sample

In qualitative research, the sample size is typically limited since large samples may produce results that are unreliable, difficult to understand, or both (Holloway & Wheeler, 2013). Purposive sampling was used to choose a qualitative sample for this investigation. The purposive sampling approach involves choosing a sample based on the researcher's judgement and using the appropriate selection criteria for the study (Yin, 2018). A non-probability sampling technique called convenience sampling necessitates choosing participants based on their accessibility and vicinity to the researcher (Creswell, 2013). There were six schools from where participants were drawn, and a sample size of 18 Grade 12 learners was selected for the online interviews (Zoom/WhatsApp). An equal number of boys and girls were selected from each of the six Secondary Schools. The sample size of 18 Grade 12 learners was deemed suitable for this study because it is within the recommended range of minimum (10) and maximum (30) participants across the six schools according to Mason, (2010). Mason (2010) conducted a thorough examination of qualitative sample sizes in PhD dissertations and reported that the most typical sample sizes for interviews were 10, 20, or 30 participants. This ensured that saturation is achieved. The sample size of 23 Grade 12 learners was considered appropriate for the present study because it is within the recommended range of between 10-30 participants as recommended by Mason, (2010) for qualitative samples for doctoral studies. The participants were selected for online interviews using the purposive sampling technique.

Table 5: *Participants' profile*

Participants	Age	Gender	Brief description
P1	17	F	She is comfortable working alone, raised by her mother
P2	17	F	A grade 12 learner with good academic performance
P3	18	F	An excellent academic achiever, confident about her ability
P4	17	F	An average learner who chooses to be different
P5	19	M	An open-minded person who believed in himself with the support from his twin sister

P6	17	F	An inquisitive young lady, raised by her grandmother, believed in the power of women
P7	19	M	The only boy in his family, an average learner with entrepreneurial ability
P8	20	F	An orphan with an average academic performance, raised by her grandmother
P9	18	M	A God-fearing learner with the ambition to become a pastor and instill morals in the youths
P10	19	F	She is kind-hearted, always willing to do good
P11	18	F	She is a decisive person who does not belief in failure
P12	17	M	An average learner who loves to succeed
P13	19	M	A hard-working learner with an academic excellence in Mathematics
P14	20	M	An orphan who grew up with her grandmother and loves to make a difference in his community
P15	18	F	An average academic performance young lady with a goal driven personality
P16	19	M	A kind and dedicated young man, a top academic achiever
P17	18	M	A grade 12 learner, talented in Arts, has an entrepreneurial capacity in photography. Determined to empower the youths in his community with his talent
P18	17	M	An out-going person, living with his two brothers. Willing to make a difference in his community.

4.10 Data collection instruments

The required data for this study was collected using questionnaires and online interviews (Zoom/WhatsApp). The quantitative data was collected using several validated scales (big five

personality inventory, general self-efficacy scale, career interest scale, locus of control questionnaire, peer influence scale, teacher's influence scale, influence of older siblings' scale, Rosenberg self-esteem scale, psychological identity scale and career decision-making questionnaire). Each of the scales had items on varying Likert scales as a response format to ascertain some of the psychological and social factors that influence learners' career decision-making. The constructs that were measured by questionnaires include psychological factors, social factors and career decision making. Qualitative data was collected by conducting online interviews with selected Grade 12 learners on the factors that they believe to have an influence on their career decision-making while choosing their career path post Grade 12.

4.10.1 Quantitative data collection

The quantitative research involves measurements, gauging the magnitude, size or level of a phenomenon, which is grounded on an interpretive philosophy (Timans, et al., 2019). Mathematical significance of data is examined in quantitative research and statistics play an essential role in proving the scientific view of research (Neuman, 2014), a positivistic approach is employed in the social sciences by quantitative researchers who rely to a large extent on a technocratic approach, the research process includes variables and hypothesis testing; precise measurement of variables and hypothesis testing, which are linked to general and causal explanations, are emphasized (Morgan, 2014). In the quantitative data collection, the measurements from the study variables were employed in this study to test the research hypotheses and to accomplish the aims and objectives of this study.

Schoomenboom (2016) describes quantitative research as a prescribed impartial and methodical procedure in which statistical data are employed to explain evidence about a phenomenon. This research method was employed to define variables and ascertain relationships between two or more variables. Additionally, Creswell (2013) illustrates that in quantitative research, the investigation is into communal or social challenges that may arise in the society, founded on analysing a theory comprised variables, gauged with numbers and evaluated with geometric procedures, to establish whether the predicting generalisations of the research concept are accurate.

In the first part of this study, all participants were given the structured questionnaire including the demographic information and the psychological and social factors influencing career decision-making. Likert 5-point scale responses were adopted in the survey for quantitative data collection. The demographic questionnaire entails information where the participants indicated their age, gender, grade and socio-cultural group. The variables that were measured by the questionnaires of the study and response formats were explained to the selected Grade 12 learners. The career decision questionnaires comprised questions on the psychological and social factors influencing career decision-making of Grade 12 learners such as, locus of control, personality types, self-efficacy, self-esteem, psychological identity, peer influence, parental influence, career interest and career decision-making. In order to make sure the completed questionnaire is returned; the questionnaire was handed over to the Life Orientation teacher in charge of Grade 12 learners. Similarly, the consent form was given to the same teacher after a thorough explanation of the questionnaire over the phone and took between 30 and 45 minutes to complete with proper sanitization protocols observed. Additionally, monitoring during questionnaire completion is important to clarify ambiguity in the questionnaire which the learners may not understand (Fetters & Molina-Azorin, 2017). The researcher collected the completed questionnaires and then proceeded to the second part, which is the qualitative component.

- ***Questionnaires***

Self-administered questionnaire was used to gather information from participants. Fetters and Molina-Anzorin (2017) described questionnaires as a planned list comprising pertinent questions, declarations or elements on a particular topic that is submitted to a group of people or target group for their responses or evaluation in order to acquire the necessary data for decision making. Questionnaires are research instruments that provide the researcher with an opportunity to gather facts or views concerning a given subject. In addition, they are a good standard for assessing personalities, motivation or principles of participants (Neuman, 2014). The research questionnaire for this study focused on the psychological and social factors that influence learners' career decision-making process, such as; Locus of Control Scale (LCS), Big Five Personality Inventory (BFPI), Self-Efficacy Scale (SES), Career Interest Questionnaire (CIQ), Parental Influence Questionnaire (PIQ), Peer Influence Questionnaire (PIQ) and Career Decision Making Questionnaire (CDMQ) which are elaborated below.

4.10.1.1 Locus of Control Scale

The Locus of Control Scale (LCS; Rotter, 1966) is a personality test that was modified to measure the extent to which individuals believe they are in-charge of events that influence their lives. The scale consisted of 13 item questionnaires. The Grade 12 learners were required to rate their perceptions using the questionnaire to determine general expectations for internal and external control of reinforcement. In this current study, the questionnaire was prepared using 2-points scale which allows respondent to choose either *yes* or *no*. this scale assisted the researcher to classify the locus of control of research participants as either internal or external in nature.

4.10.1.2 Self-Efficacy Scale

Self-efficacy was measured using Self-Efficacy Scale (SES) adopted from Bandura (2001). Self-efficacy is the confidence in one's abilities to develop and implement the guiding principles necessary to control a potential situation (Bandura, 2001). The SES contains self-report items that was used to measure inspiration and performance among Grade 12 township learners. The scale contains 10 items on a 4-point scale, namely; *Not at all true*, *Hardly true*, *Moderately true* and *Exactly true*. A higher score indicated learners' higher level of inspiration and performance, which implies high self-efficacy while a low score implies low self-efficacy.

4.10.1.3 Big Five Personality Inventory

The Big Five Personality Traits Questionnaire (BFPI) was adopted from Golberg (1993) to measure the different personality types that the Grade 12 learners in township Secondary Schools possess. The BFPTQ is a concise personality screening questionnaire that consists of 18 items measuring five different personality trait factors: Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism (Soto, 2016). The items that were used consisted of both positive and negative personality traits. Each of the five factors of personality traits contain self-report items in which Grade 12 learners were required to respond to on a 5-point Likert scale (*strongly disagree*; *disagree*; *neither agree nor disagree*; *agree*, *strongly agree*).

4.10.1.4 Career Interest Scale

Career interest was measured using the Career Interest scale (CIS; Athanasou, 1986). The scale was modified to measure learner's career interest. Career interest is a process of exploring, examining and researching one's interest before choosing a career. Grade 12 learners were

required to rate their personal understanding of what motivate them in their environment as one of the key factors in exploring potential careers using 5-pointLikert response scale (*Strongly Disagree, Disagree, Undecided, Agree* and *Strongly Agree*).

4.10.1.5 Parental Influence Questionnaire

Parental Influence Questionnaire (PIQ) was used to measure parental control. Parental influence is more probable during adolescence stage when adolescents are developing a sense of identity and deciding on their career choice (Rodríguez, Inda, & Fernández, 2015). The PIQ include self-report items that were used to measure learners' perceptions of their parental influence. The Grade 12 learners responded on a 5-point Likert scale (*Strongly Agree, Agree, Undecided, Disagree* and *Strongly Disagree*).

4.10.1.6 Peer Influence Questionnaire

Peer influence was measured using the adapted Peer Influence Questionnaire (PIQ). In particular, the felt influence subscale was used to assess learner's perceived influence from their peers through self-report. Peer influence is making a decision that does not reflect your personality and interest but rather a reflection of social life that depends solely on peers (Masara, 2010). On this scale, 15 items assessed level of peer influence. Participants were expected to rate how descriptive each item was related to their peers' characters using a five-point response scale (*Strongly Disagree, Disagree, Undecided, Agree* and *Strongly Agree*). Accordingly, the high score reflected higher level of peer influence and low score reflected lower level of peer influence as perceived by the Grade 12 learners in township Secondary Schools.

4.10.1.7 Career Decision-Making Scale

Career decision-making was measured using Career Decision-Making Scale (CDMS; Meyer, 1987). The Career Decision-Making Scale (CDMS) was derived from the underlying principle that a limited number of comparatively discrete factors prevent learners from getting closure for educational and career decision-making. The scale presented an estimate of career indecision and its antecedents among Grade 12 learners in township Secondary Schools (Osipow, 1987). The scale comprised 18 items which the Participants were required to respond on a four point Likert scale (*Exactly like me, Very much like me, only slightly like me, not at all like me*).

4.10.2 Qualitative data collection

The qualitative component was employed for this study so that rich data may be collected. Individuals develop diverse interpretations of their environment, as result of their knowledge and experiences, which are disparate (Mihrka, 2014). In addition, as it was anticipated the qualitative aspect elicited the information necessary to answer the qualitative research questions as well as to achieve the aims and objectives of this study. The qualitative method allowed the researcher to examine, ascertain, define, relate and evaluate the features, qualities, themes and fundamental dimensions of a specific component (Maxwell, 2013). It describes individual's interaction, experiences and relationship in a particular environment (Creswell. 2014). A qualitative data is relevant for this study because the researcher intends to get a rich description of the phenomenon of career decision making under investigation in the present study. Hence, the research focus is a perception and creation of the understanding of psycho-social factors influencing the career decision-making of Grade 12 learners in Gauteng East District, South Africa.

A research study needs to enhance the societal values and the improvement of individuals in the society. Dealing with emotional harm in qualitative research necessitates the researcher to demonstrate understanding, because of the in-depth exploration of the subject matter into individual feelings that may reveal entrenched fright, guiltiness and nervousness (Polit& Beck, 2014). For this study, data collection was made through qualitative Zoom/WhatsApp interviews, as may be available to learners in each of the six selected Secondary Schools. This method was adopted to provide an equilibrium sharing of influence between the researcher and the interviewee. The technique allowed the researcher to align this study with the appropriate social distancing required to reduce the spread of COVID-19. This technique was logical during Corona Virus pandemic because it was not possible for the researcher to conduct face-to-face interviews with Grade 12 learners at their schools. Despite interviews in qualitative research, taking many forms the most common interview used is the open-ended questions (Creswell, 2014). The reason why open-ended questions are used is because the researcher should not ask evocative questions but instead should focus on enquiring participants' views, experiences and influences on their career decision-making.

With the guidance of the responsible teacher, the participants were instructed to locate a quiet area where they could freely express their opinions and experiences during the interview session. To clarify, the participants were told of their anonymity, confidentiality, and guarantees that they might leave the interview at any point if they felt uncomfortable. Following consent and participant approval, audio recordings of all performed interviews were made. This approach is thought to be one of the best ones for accurately documenting interviews for a research study (Yin, 2014). In qualitative interviews, it is crucial to gather all the pertinent information that will provide the researcher the chance to pay attention to the audio recordings ceaselessly for a while, so the researcher can clearly hear and fully comprehend the interviewee's responses to the questions posed (Tracy, 2013). Additionally, this method enables the many participants to express their opinions, experiences, and worries in order to give the researcher a more comprehensive perspective on the actual process (Creswell, 2014). The selected participants were interviewed on the psychological and social factors that influence their career decision-making using a guided interview schedule. Each interview session was approximately 30 to 45 minutes, to enable the researcher to probe where necessary and participants were allowed an opportunity to ask questions. The recorded interviews were transcribed for data analysis to commence.

4.10.3 Validity and Reliability of the Quantitative Instruments

In a mixed method research, it is essential to authenticate the results of the study as well as the researcher's interpretations of findings. Validity and reliability were ensured in this study as the researcher made sure that the questionnaire was tested before the research was conducted to ascertain validity and reliability of the survey questions. Validity and reliability for quantitative data depend on each other and a measuring instrument that is not reliable cannot definitely be valid (Schoonenboom, 2017). Additionally, the language that was used for the questionnaire was English. Steps to ensure validity and reliability of the questionnaires are discussed next.

4.10.3.1 Reliability Tests of Questionnaires

In a quantitative study, reliability is used to measure quality. Reliability is described as the degree to which a research instrument continually gives similar results when it is employed in the same condition on frequent occurrences (Creswell, 2017). To ensure reliability of the learners'

questionnaire, each subscale's items' degree of internal consistency was measured. Creswell (2017) affirms that the degree to which an instrument is error-free, dependable, and constant throughout time and among the different scale components is known as its internal consistency. Analysis of the Cronbach's alpha coefficient was performed to gauge the instruments' internal consistency. As the most reliable test of inter-item consistency reliability for Likert scaled or rating scaled questionnaires, Oso and Onen (2013) advise using Cronbach's alpha to assess internal consistence. Alpha is mostly reported for the creation of scales envisioned to measure attitudes and other affective constructs. According to Creswell (2017), the closer the Cronbach's Alpha Coefficient is to 1, the higher the internal consistency reliability. Cronbach's Alpha is given as a number between 0 and 1. In this study, all of the subscales in the questionnaires given to 12th Grade learners had their reliability for multi-item opinion items assessed individually. The coefficient alpha for these variables is shown in Table 6.

Table 6: *Internal Consistency: Cronbach's Alpha Results for the Questionnaire*

Scale	**No. Items**	**Cronbach's**	**Item (s) deleted**	**Conclusion (Reliable/Unreliabl**
Big Five Inventory				
• Extraversion	8	.739	None	**Good**
• Agreeableness	9	.734	None	**Good**
• Conscientious	9	.796	None	**Good**
• Neuroticism	8	.834	None	**Excellent**
• Openness	10	.647	None	**Acceptable**
Self-efficacy	10	.785	None	**Good**
Locus of Control	13	.784	None	**Good**
Career Interest				
• Artistic	5	.793	None	**Acceptable**
• Biotic	5	.755	None	**Acceptable**
• Conventional	5	.762	None	**Good**
• Expressive	5	.741	None	**Good**
• Investigative	5	.816	None	**Excellent**
• Operational	5	.835	None	**Excellent**
• Social	5	.821	None	**Excellent**
• Enterprising	5	.822	None	**Excellent**

• Adventurous	5	.789	None	**Good**
Self-esteem scale	10	.871	None	**Excellent**
Psychological Identity	10	.759	None	**Good**
Social Factors				
• Peer Influence	3	.737	None	**Good**
• Teachers Influence	3	.701	None	**Good**
• Career Information Service	3	.736	None	**Good**
• Influence of Older Siblings	6	.792	None	**Good**
Challenges in Career Decision Making	6	.911	None	**Excellent**
Career Decision Making	5	.842	None	**Excellent**
Mean overall scale reliability		**.787**		**Acceptable**

Source: Author (2021), SPSS Analysis.

Scale: Alpha 0.8-0.9 (Excellent); 0.7-0.8 (Good); 0.6-0.7 (Acceptable); 0.5-0.6 (Questionable); and <0.5 (Unacceptable) (George &Mallery, 2003).

The results of reliability in Table 6 reveals that all the sub-scales used to obtain quantitative data in the present study reached the recommended level of internal consistency of reliability. For instance, with regard to BFI scale, the findings showed that, with the exception of the Openness sub-scale, all the sub-scales had alpha values were greater than .70. This suggests that the BFI scale had sufficient reliability for the study because all of the items correlated favourably with one another across all of the sub-scales.

The scales, "self-efficacy" and "locus of control" all reached alpha levels greater than .70, suggesting that these sub-scales' items were internally consistent. On the career interest scale, all of the subscales' Cronbach's values fell within the acceptable range, with career operational scoring the highest (alpha=.835) and expressive career interest scoring the lowest (alpha=.741). Similarly, the self-esteem scale, which was composed of 10 items, had coefficient alpha value of .871, which was considered quite satisfactory. In addition, although the social factor sub-scales reflected varied levels of Cronbach's alpha values, all the values show sufficient internal consistent reliability with teachers influence sub-scale having the least coefficient value of .701 and influence of older siblings' sub-scale being at .792. As indicated by Cronbach's alpha values of.842 and.911, respectively, the career decision making sub-scale and challenges in the career decision sub-scale both demonstrated outstanding internal consistent reliability. In overall, internal consistent

reliability mean rating of.787 confirm that the student questionnaire that sought to assess the influence of psycho-social factors on decision-making among the 12th Grade learners was of an acceptable reliability standard. Whereas there seems to be no absolute rules for internal consistency, but George and Mallery (2003) rate the alpha values as follows: below 0.5 is considered unsatisfactory, followed by between 0.8 and 0.9 as great, 0.7 and 0.8 as good, 0.6 and 0.7 as acceptable, and 0.5 and 0.6 as questionable. They caution against alpha values exceeding 0.90 as indicative of redundancy of items and need to shorten the test length. Therefore, it can be concluded that all the scales used to obtain quantitative data for the present study were all reliable and had values above the required thresholds.

4.10.3.2 Validity Tests of Questionnaires

The accuracy of a measure or the amount to which a score accurately captures a notion is known as validity. Validity is the degree to which a test measures what it was intended to assess (Oso & Onen, 2009). As described by Gravetter & Wallnau, the Kaiser-Meyer-Oklin measure (KMO Index) and the Bartlett's Test of Sphericity were used in this study to assess the adequacy of the survey data for testing construct validity (2000). In this regard, the internal validity of the data set used to analyse the questionnaire was evaluated for each sub-scale, with the findings summarised as shown in Table 7.

Table 7: *KMO and Bartlett's Test results*

Sub-scale	**Kaiser-Meyer-Oklin (KMO index)**	**Bartlett's Test for Sphericity**		
		Approx. Chi-Square	**df**	**Sig.**
Big Five Inventory				
• Extraversion	689	157.764	28	.000
• Agreeableness	.647	246.746	36	.000
• Conscientious	.719	138.103	36	.000
• Neuroticism	.746	205.560	28	.000
• Openness	.743	282.146	45	.000
Self-efficacy	.704	279.975	45	.000
Locus of Control	.634	359.396	78	.000
Career Interest				
• Artistic	.641	43.467	74	.000
• Biotic	.702	161.593	10	.000

• Conventional	.778	234.458	10	.000
• Expressive	.803	196.051	10	.000
• Investigative	.784	374.507	10	.000
• Operational	.824	371.699	10	.000
• Social	.829	355.298	10	.000
• Enterprising	.840	320.963	10	.000
• Adventurous	.779	286.260	10	.000
Self-esteem scale	.739	588.149	45	.000
Psychological Identity				
Social Factors	.761	581.404	45	.000
• Peer Influence	.522	76.543	10	.000
• Teachers Influence	.714	176.671	10	.000
• Career Information Service	.570	97.254	10	.000
• Influence of Older Siblings	.657	146.511	10	.000
Challenges in Career Decision Making	.915	1200.641	55	.000
Career Decision Making	.848	1327.956	153	.000

Source: Survey data (2021), SPSS Analysis

The values of the Kaiser-Meyer-Oklin (KMO Index), which is a measure of sampling adequacy, and the Bartlett's Test for Sphericity show that the measures for each sub-scale had appropriate internal validity, according to the validity results of the questionnaires in Table 7. On the one hand, the KMO statistics ranges from 0 to 1, with a value close to 0 indicating that the total of partial correlations is significant compared to the sum of correlations, which implies diffusion in the correlation pattern. However, a correlation pattern that is relatively tight and close to 1 suggests that the variables are measuring the latent constructs. According to Field (2005), values for the Kaiser-Meyer-Oklin measure of sample adequacy should fall between 0.5 and 0.7 to be considered acceptable, 0.7 to 0.8 to be considered good, 0.8 to 0.9 to be considered very good, and above 0.9 to be considered excellent. For an appropriate internal validity, Field (2005) advises that the Bartlett's Sphericity test statistic should be less than 0.05. All of the sub-scales of the questionnaire have KMO values above 0.5 with respect to the current study, and Bartlett's tests for sphericity are highly significant (p 0.05) for all of the sub-scales of the questionnaire, suggesting a sufficient

level of internal validity. It was determined as a result that changes in the dependent variable were caused by the independent variables.

4.10.3.3 Semi- structured interviews

Semi-structured interview is the type of interview that is commonly used in qualitative research to gather information from participants. Semi-structured interview is defined as the qualitative data collection approach that permits the researcher to ask series of predetermined open-ended questions from participants. This type of interview is presided over by an interview guide, which serves as a structure for the interview. Therefore, the semi-structured interview offers the opportunity to deepen particular points during discussion with the participant (Creswell & Plano Clark, 2018). The purpose is to gather participants' views and perceptions that may have a specific influence on the subject under investigation.

The semi-structured interviews adopted as the data collection instrument for the qualitative component for this study was in order so that data collected is rich and thick. Yin (2014), Neuman (2014) and Patton (2014) state that an interview is a very important source of information specifically in qualitative research. The information gained is usually reported by well-informed participants and this information could be interpreted and provide significant insight into the career decision-making of Grade 12 learners. An interview is considered as a verbal report only and consequently, is viewed to be subject to bias, poor recall and inaccurate verbalization. Harrison, Birks, Franklin and Mills (2017), advice that the researcher should listen carefully to the participants experiences and reasons for choices of their chosen careers. In this regard it will be necessary to probe and delve into the participants' emotions, attitudes as well as experiences in their career decisions. According to career development theory social and psychological factors support career decisions and consequently the information regarding participants' career decision-making was elicited through semi-structured interviews (Patton & McMahon, 2014). These interviews were digitally recorded with the permission of the participants in order that the researcher may keep an audit trail once the recordings are transcribed verbatim and coded for analysis.

Semi-structured interviews were conducted with 23 Grade 12 learners. In addition, the choice of semi-structured interviews for the qualitative data collection as oppose to focus group discussions with the learners is because the researcher felt that individual learners were more comfortable to share their thought on what they base their career choices. Prior to the interview, a pilot interview was conducted. A pilot interview is the collection of data preceding the actual investigation to determine time requirements and identify flaws or mistakes (Yin, 2018).

4.11 Data analysis

Data analysis is the process of interpreting data using analytical and logical reasoning to discover patterns, correlations, and trends, it summarises the information gathered (Creswell & Plano Clark, 2018). The current study is a mixed methods design in nature; therefore, the data analyses included both quantitative and qualitative data. As discussed in chapter three, the career development theory created potential factors related to the learners' career decision-making processes, which was used as a theoretical framework for this study. The information that was gathered from psycho-social factors (independent variables) and career decision-making questionnaires (dependent variables) of the study was used to test the research hypotheses. The two types of data collection were integrated tostrengthen and enrich the analysis and findings of psycho-social factors influencing learners' career decision-making.

4.11.1 Quantitative Data Analysis

Quantitative data analysis simply means analysing data based on numbers or data that could be converted to numbers without losing any significant meaning (Creswell & Plano Clark, 2018). Raw data from the responses to the questionnaires that were distributed were transformed into a form such that data analysis could start. By creating specific categories, the researcher evaluated the data and assigned numerical values to each response (Miles, Huberman & Saldana, 2014). The researcher used descriptive statistics, which are used for labelling, summarising, and making sense of a particular set of data, to analyse the data, such as frequencies and percentages (Creswell & Plano Clark, 2018). The statistical package for the social sciences (SPSS) computer programme, version 26, was used for recording and collating. In accordance with the study's research objectives, inferential statistics such as Pearson Product Moment Correlation were utilised to examine the hypotheses on the relationship between research variables. The analysis of variance (ANOVA) was used to determine the differences in means among three or more groups, whereas

the independent samples t-test was used to determine differences in means between two groups. The connections between two or more independent variables were examined using multiple regression analysis, and the structural relationship between the variables was examined using structural equation modelling. The hypotheses were tested using the quantitative data collected for this investigation. The significance level for testing the null hypotheses was 0.05.

4.11.2 Assumptions of Regression Analysis

Statistical tests rely on specific variables being utilised in the analysis, and if these assumptions are not met, results become unreliable and frequently lead to Type I or II errors, as well as over- or under-estimations of significance or effect size (s). In order to determine whether the gathered data were appropriate for multiple regression analysis, the following diagnostic tests were performed: normality, absence of perfect multi-collinearity, homoscedasticity and heteroscedasticity, independence of errors, and linearity of parameters.

4.11.2.1 Normality Test Results

Regression residuals must adhere to a normal distribution in order to yield reliable conclusions. The error terms, also known as the discrepancies between the observed and anticipated values of the dependent variable, are the residuals. The variables' non-normality invalidates the significance tests and the relationships between them. In accordance with Gravetter & Wallnau's (2000) guideline, the study used Shapiro-test Wilk's (S-W) to determine if the variables were normally distributed. Tabachnick and Fidell (2001) recommend that Shapiro-test Wilk's should be used in small and medium samples up to n = 2000. The correlation between a set of given data and the related normal scores is equivalent to the Shapiro-Wilk statistic, with S-W = 1 indicating that the correlation is entirely normal. This suggests that the normalcy assumption is not met if the S-W is considerably (p.05) lower than 1. The data is therefore considered normal when Shapiro-Wilk (S-W) is .05. The results of the Shapiro-Wilk tests are shown in Table 8 of the SPSS output.

Table 8: *Tests of Normality of the Data Set*

	Shapiro-Wilk		
	Statistic	Df	Sig.
Extraversion	.983	204	.055
Agreeableness	.990	204	.149
Conscientiousness	.985	204	.067
Neuroticism	.984	204	.058
Openness	.983	204	.055
Self-efficacy	.989	204	.101
Locus of Control	.987	204	.068
Artistic Career Interest	.911	204	.010
Biotic Career Interest	.977	204	.052
Conventional Career Interest	.896	204	.007
Expressive Career Interest	.897	204	.066
Investigative Career Interest	.879	204	.054
Operational Career Interest	.902	204	.100
Social Career Interest	.657	204	.000
Enterprising Career Interest	.859	204	.000
Adventurous Career Interest	.893	204	.204
Self-esteem	.988	204	.083
Psychological Identity	.964	204	.103
Peer Influence	.977	204	.072
Teacher Influence	.970	204	.071
Career Information Service	.989	204	.133
Influence of older siblings	.985	204	.031
Challenges of career decision	.988	204	.092
Career Decision Making	.988	204	.086

Source: Survey data (2021), SPSS Analysis

Given that there were few statistically significant differences between the variables and their corresponding normal scores, and because the p-values were higher than the previously established significant value of 0.05, it is clear from Table 8 that majority of the variables showed normal distribution. Five variables, including artistic career interest, conventional career interest, social career interest, entrepreneurial career interest, and influence of older siblings, however, violated the assumption of normality. As a result, before using them in inferential statistics, they had to be

modified to eliminate the skewness that was seen in the original data, as stated by Gravetter & Wallnau (2000).

4.11.2.2 Assumptions of Multi-Collinearity

When a predictor variable in a multiple regression model can be linearly predicted with a high degree of accuracy from the other variables, this is known as multi-collinearity. Multi-collinearity, according to Gravetter and Wallnau (2000), is an excessively high level of inter-correlation among the independent variables in a study, making it impossible to distinguish between the effects of the independent factors on the dependent variable. Given that what one regressor explains about the response overlaps with what another regressor or a group of additional regressors explain, this leads to redundancy. Although correlation matrices are occasionally employed to examine the intercorrelation pattern among the variables, their application is insufficient. In order to test the multi-collinearity assumption, Tabachnick & Fidell (2001) examined tolerance and the variance inflation factor (VIF). Tolerance is the portion of the predictor's variance that cannot be explained by the other predictors. According to Cohen & Cohen (1983), a tiny tolerance value means that the variable being considered is virtually a perfect linear combination of other independent variables already in the equation and should therefore not be included to the regression equation because it is inconsequential. A VIF greater than 10 or a tolerance (the reciprocal of VIF) below 0.10 would be signs of major multi-collinearity issues (Field, 2000). The SPSS result in Table 9 provides the tolerance and Variance Inflation Factors.

Table 9: *Tolerance and Variance Inflation Factor (VIF) Statistics*

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Extraversion	.798	1.253
	Agreeableness	.695	1.440
	Conscientiousness	.639	1.564
	Neuroticism	.690	1.449
	Openness	.760	1.316
	Self-efficacy	.597	1.674
	Locus of Control	.656	1.525
	Artistic Career Interest	.681	1.469
	Biotic Career Interest	.557	1.796
	Conventional Career Interest	.554	1.804
	Expressive Career Interest	.542	1.844
	Investigative Career Interest	.601	1.663
	Operational Career Interest	.565	1.769
	Social Career Interest	.460	2.176
	Enterprising Career Interest	.485	2.060
	Adventurous Career Interest	.551	1.815
	Self-esteem	.734	1.363
	Psychological Identity	.604	1.655
	Peer Influence	.751	1.332
	Teacher Influence	.666	1.501
	Career Information Service	.688	1.453
	Influence of older siblings	.732	1.365
	Challenges of career decision making	.812	1.232

Source: Survey data (2021), SPSS Analysis

Given that each of the variables had an adequate tolerance (tolerance value > 0.10) and a low variance inflation factor (VIF 10), Table 9 shows that the multi-collinearity conditions were satisfied, proving that there was no violation of the multi-collinearity assumptions that are necessary for multiple regression analysis.

4.11.2.3 Homoscedasticity and Heteroscedasticity

The study also looked into the homoscedasticity premise. Homoscedasticity is the property that all levels of the independent variable have the same error variance. According to Tabachnick and Fidell (2001), heteroscedasticity is a sign when the variance of errors varies depending on the independent variable's value. However, they found that while mild heteroscedasticity has minimal impact on tests of significance, when it is strong, serious findings distortion and serious weakening of the analysis might occur, increasing the risk of a Type I error. By visually examining a plot of the standardised residuals (the errors) against the regression's standardised predicted value, the hypothesis of homoscedasticity was verified. According to Gravetter and Wallnau (2000), if a model is properly fitted, the residuals displayed against the fitted values shouldn't show any trend. Therefore, heteroscedasticity would be implied by the residuals' non-constant variance. By plotting residuals against fitted (predicted) values, as shown in Figure 7, this was illustrated graphically.

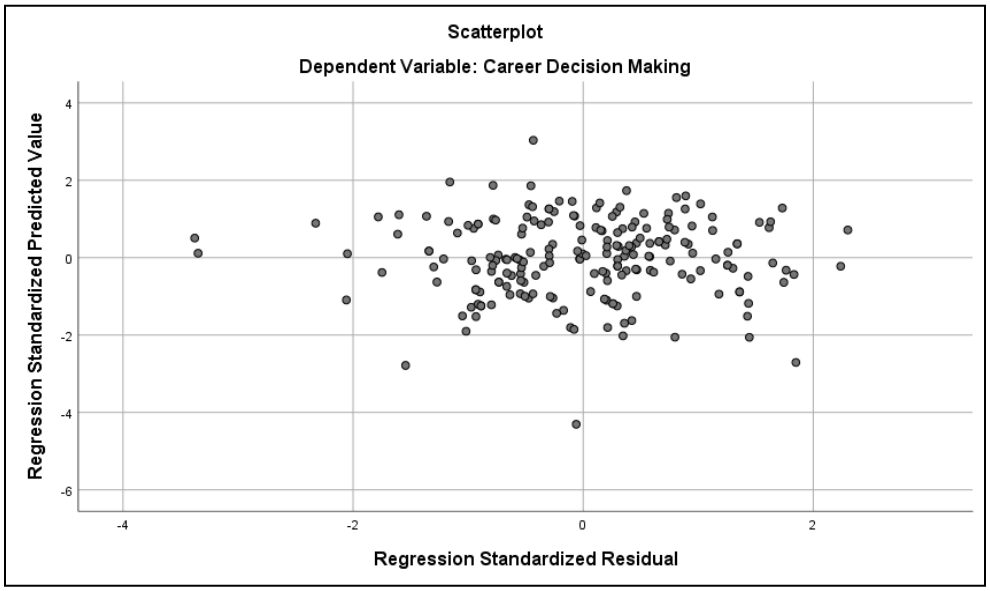


Figure 7: *Scatter plot of standardized residuals against standardized predicted values*
Source: Survey data (2021), SPSS Analysis

Figure 7 reveal that although the data points seem to be moving from left to right, it almost formed a pattern less cloud of dots characterizing heteroscedasticity or absence of Homoscedacitisty. When the scatter is uneven and without any distinct patterns, heteroscedasticity is presumed (Gravetter and Wallnau, 2000). In addition, there was no appreciable deviation from the premise of homoscedacitisty, which refers to the equal variance of errors across all levels of the

independent variables. The variance around the regression line was therefore assumed to be the same for all values of the predictor variables, proving that errors were distributed uniformly throughout the variables. Multiple regression and correlation analyses were therefore considered appropriate.

4.11.2.4 Test for Independence of Errors

Errors in multiple regressions are presumed to be independent, and when this assumption is broken, estimates of the standard errors and significance are skewed. This presumption states that the observations in the sample are independent of one another, which means that the measurements for each subject in the sample are not affected by or connected to those of other subjects in any manner. The Durbin Watson was employed in accordance with Fox's (1991) suggestions to test error independence. According to Tabachnick and Fidell, a Durbin-Watson range of 1.50 to 2.50 implies that the assumption of independence has not been broken (2001). The Test of Independence findings are shown in Table 10.

Table 10: *Test of Independence: Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.551[a]	.304	.215	.51670	2.061

a. Predictors: (Constant), Challenges of career decision making, Extraversion, Career Information Service, Artistic Career Interest, Agreeableness, Investigative Career Interest, Peer Influence, Self-esteem, Self-efficacy, Influence of older siblings, Social Career Interest, Openness, Teacher Influence, Neuroticism, Conscientiousness, Locus of Control, Psychological Identity , Operational Career Interest, Conventional Career Interest, Adventurous Career Interest, Biotic Career Interest, Expressive Career Interest, Enterprising Career Interest

b. Dependent Variable: Career Decision Making

Source: Survey data (2021), SPSS Analysis

Table 10 makes it clear that there was no autocorrelation in the data, and that the premise of independence was upheld as evidenced by the Durbin-Watson statistic of 2.061, which is within the range of 1.5 and 2.5.

4.11.2.5 Common Method Bias

This study sought to look into the idea of common technique bias. CMB is the degree of erroneous correlation between variables that is produced when each variable is measured using the same technique (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). CMB may inflate or deflate findings, which may result in incorrect conclusions regarding the connections between variables. The CMB was tested using Harman's Single-Factor Test. A Harman one-factor analysis aids in determining whether a single component is responsible for data variance. This approach involved loading all items from each construct into a factor analysis to see if a single factor emerged or if a single general factor explained the majority of the covariance between the measures. Principal component analysis was used for this test such that common method bias would be considered present if the total variance extracted by one factor exceeded 50%. (Chang et al., 2010). Since the total variance recovered by one factor in each construct was less than the advised threshold of 50%, the findings of the principal component analysis showed that common method bias was not a concern in this data. This shows that no single factor emerged and was responsible for the majority of the covariance across all of the sub-scales.

4.11.3 Qualitative analysis

According to Neuman, (2014, p. 421), “data analysis means a search for patterns in data-recurrent behaviour, objects or a body of knowledge”. The vast amount of material that was gathered for the qualitative component was condensed using thematic content analysis, which is a technique for analysing qualitative data. It is generally applied to a group of texts, for example interview transcripts. The researcher intimately observes the data to identify similar themes, subjects, ideas and patterns of significance that appear frequently (Creswell, 2013). It is also essential that the researcher takes cognisance to construct the participants’ experiences of their world and how it is experienced (Creswell, 2014). Once the raw data has been transcribed, the researcher has an obligation to identify patterns within the words and action of the participants and subsequently to request others to examine the patterns while at the same time to remain close to the construction of the participants’ world as they experience it.

The three methods of data coding such as open coding, axial coding and selective coding was used in the analysis of interview data as recommended by Neuman (2014). Firstly, once the raw data

has been transcribed, the researcher assigned codes to the raw data, which is the first path through the data and is known as open coding. It is important to remember that these initial labels are at a very low level of abstraction and originate from the interview questions. The second pass through the data after the open coding has been completed is referred to as axial coding (Neuman, 2014). This second pass through the already labelled data is aimed at identifying links between categories and sub categories, which emanated from this second pass through the data.

In order to make the necessary link between the categories, the researcher looked at overlaps between the first and second passes through the data. Once these links have been made and themes emerged, the researcher examined the themes and evaluate whether they answer the research questions and if there are other subthemes these may be added to the major theme, subsequently the themes are clustered and were examined in the process of selective coding which is the final pass through the data (Neuman, 2014). The information that collected from the qualitative data was employed to provide answer to the research questions. Creswell (2017) asserts that the gathering and analysis of well-rooted qualitative responses can improve and clarify difficult or conflicting survey responses.

4.12 Trustworthiness for qualitative research

The most common term that is employed in qualitative research to describe validity of research tools is trustworthiness (Tracy, 2013). Trustworthiness is also the reliability of the collected data in qualitative research about the participant or from the participant on a subject matter (Mandal, 2018). In a qualitative study, it is necessary to authenticate the results because authenticity helps the researcher to ensure the trustworthiness of qualitative data obtained. (Patton, 2014). This aids the researcher to institute the accuracy and credibility of a study by engaging the strategies of triangulation and member checking. It is essential that the researcher spend a comprehensive time in the field for accuracy to be achieved and intended probes were used during the interviews to ensure the understanding of the participants' information (Polit & Beck, 2014). In addition, the researcher employed member checking which necessitated the participants to authenticate the

accuracy of the data (Creswell, 2014). The gathered data was accessible to the participants after the verbal interviews have been transcribed, to ensure the accuracy of the transcription.

Trustworthiness can be divided into credibility, which relates to the internal validity; dependability, which associates more to reliability; transferability, which is a kind of external validity; and confirmability, which is principally an issue of presentation (Sandelowski, 1993; Gunawan, 2015). To measure the trustworthiness of a qualitative research, researchers in a qualitative study apply four procedures as projected by Lincoln and Guba (1985) such as credibility, dependability, transferability and confirmability.

4.12.1 Transferability (Applicability)

This is the ability of the research results to be compared to a related condition and producing comparable results (Clark & Chevrette, 2017). The researcher made an appropriate decision with other probable contexts; the researcher created a rich explanation of the context which permited proper evaluation of the context to other probable situations (Mihrka, 2014), this involves a proper explanation of the procedures and the situation that represent the phenomenon under study (Moser & Korstjens, 2018). Rich and thick descriptions of the phenomenon being studied enabled the researcher to describe an observation and the context in which human behaviour takes place (Noble & Smith, 2015). In the present study, transferability was ensured through the continued engagement with the topic, an in-depth analysis of the cases reveal the intricacies entrenched in the learners' experiences and the presentation of descriptive interpretations of the phenomena under exploration.

4.12.2 Credibility (Truth Value)

According to Mandal (2018), credibility is the self-confidence in the gathered data and the analysis process. The long-term commitment at the research sites establishes credibility, which involves an incessant process in order to accomplish data saturation. The interviews were persistent until the researcher gets no new information. The data analysis took up enough time because it was necessary to listen to the audio recordings numerous times for clarification. The authentication of individual participants, according to Polit and Beck (2014), is the most important component in determining the validity of qualitative research. The researcher then creates divisions that show the fundamental patterns of participants' worldviews and experiences. In the present study,

credibility of interview data was ensured because participants had the opportunity to confirm the transcriptions, to determine that the researcher's explanations are a precise depiction of the participants' information. In this study, intentional probes were used during interviews to ascertain the understanding of the participants' information.

4.12.3 Dependability (Consistency)

This refers to the reliability of the qualitative data, if reproduced in a different study in a similar setting using the same participants with the same techniques (Creswell, 2014). Dependability is the integrity of the data over a precise period of time and situation (Lapan, Qartaroli&Remier, 2012). In this study, dependability was attended to by presenting a proper description of the research procedures, implementation and planned practical features of the collected qualitative data.

4.12.4 Confirmability (Neutrality)

In qualitative research, confirmability refers to how easily other researchers could confirm or justify the findings. In other words, confirmability is the degree to which research findings are a role of the situation of the research and ideas of the participants, rather than the attributes and preference of the researcher (Cho & Trent, 2011). According to Polit and Beck (2014), confirmability is employed to establish the phase at which personal interest and dispositions influence the research findings and conclusions. In a qualitative study, research focus and the research results determine confirmability, which is not essentially established by the researcher's objectivity or the instruments. In the present study, confirmability of interview data was ensured in that, the analysis, findings, and recommendations that were made in this study are traceable, an adequate review path provided through an audit trail of the evidential source of the results.

A summary of the procedures by which the researcher ensured the trustworthiness of qualitative data in this study is presented in Table 11:

Table 11: *Procedures to ensure trustworthiness of qualitative data*

CRITERIA	PROCEDURE	APPLICATION FOR THE STUDY
Credibility (Internal validity)	Field engagement	An informal and welcoming environment was created to obtain the trust and confidence of participants. The interview was conducted on line with participants sitting in a private room. Quality time was spent at each research site.
	Triangulation	Comparing findings from questionnaires, Semi-structured interview, field notes and literature review.
	Reflexivity	A reflective journal was kept during research process as part of field notes.
	Member checking	Verification of interview transcripts by the participants
Transferability (External validity)	Thick description	Sufficient and accurate detailed description of data in context.
	Thick description	Thick description of research context and sites
Dependability (Reliability)	Triangulation	Comparing findings from questionnaires, Semi-structured interview
	Audit trail	An audit trial was developed. The raw data was coded, audited and archived to allow checking of the research findings against the raw data.
Confirmability	Triangulation	An audit trail was created.
	Reflexivity	Clarification of role of researcher

Source (Adapted from Pather, 2005)

4.13 Ethical considerations

Ethical concerns should be applied to any research involving people. In a research process, adequate care should be taken to ensure participant safety and the avoidance of risk and injury when doing research involving people (Polit & Beck, 2014). First, the University of the Witwatersrand Human Research Ethics Committee's ethical approval was requested. The researcher then acquired ethical permission from the Gauteng Department of Education in order to attend the sampling Secondary Schools (GDE). The researcher informed the principals of the six selected Secondary Schools that the study will be conducted in their schools after receiving approval from the Gauteng Department of Education. The participants in this study were Grade 12 learners in Township Secondary Schools in Gauteng and were selected as soon as the research sites were identified. The participants were not classified based on race, gender or age, but participation included both male and female learners who were willing to take part in the study. Permission obtained from the Gauteng East Department of Education to gain access to schools in the Gauteng East District as well as from the principals of the schools. Additionally, informed consent was sought from the selected learners who were identified to participate in this study. However, if learners were under the age of 18 years, parental permission was also sought. A letter specifying the research title and the purpose of the study was made available to the principals and learners who were included in the study. Bearing in mind the minor status of some of the Grade 12 learners, they were required to sign an assent form indicating their consent to engage in the study. Only learners who returned the assent form were permitted to participate. Learners were well informed that participation in this study is voluntary and that they are free to withdraw at any time without any adverse effects. In addition, participant's anonymity and confidentiality were guaranteed, as pseudonyms were assigned to participants and the schools.

The data and the transcriptions of the data are stored as electronic copies on a password-protected computer that is only accessible to the researcher and the supervisors. Transcriptions from the interview were made available to participants giving them the opportunity to check for precision and to edit the transcribed document, thereby guaranteeing the authenticity and the dependability of the research process. Participants have the opportunity to assess the result of the study upon request.

The researcher ensured that schools where permission was granted by the GDE, Principal and parents were selected to conduct this research study. Arrangements for the dates and times were made and well communicated prior to meeting the Principals and the teachers in charge. The researcher then visited the school to explain the aims, purpose and the objectives of the study to the Life Orientation teacher and entertained any concerns or questions from the schools. Afterwards the information in the consent and assent forms were clarified for proper understanding, upon which the terms of confidentiality, anonymity, and the right to withdraw at any time during the data collection process were specified to them.

Due to the nature of this study, mixed methods research, the data collection procedure was separated into two parts. The first part was the quantitative component, which included all participants from the six schools, and the second part was the qualitative component. Only participants who indicate their interest were interviewed. The procedure is presented below.

4.13.1 Informed consent

Informed consent is the process of revealing to prospective research participants regarding the essential factors of the research study and what their participation entailed (Creswell, 2013). The informed consent process is an important component of the ethical conduct in any research that involves human participants. The researcher provided potential participants with written consent form containing necessary information on this study for them to make an informed decision before consenting to participating in this study.

4.13.2 Informed assent

Informed assent is the expressive consent of an individual under the age of 18 through their legally authorised representative to participate in a research study without unnecessary incentive or any element of force, deception, coercion or any other form of pressure (Creswell, 2014). The researcher provided adequate information that a person would require to make an informed decision before participation. This information was provided in comprehensible language so that the prospective participant representative can make an informed judgement for their subject.

4.13.3 Confidentiality

Confidentiality is an ethical procedure planned to protect the privacy of research participants while collecting, analysing and reporting data collected in a study (Kaiser, 2010). This means the researcher did not disclose any of the responses from the learners to others outside of the study. In addition, it means separating or adapting any personal identifying information supplied by participants from the data. Confidentiality was maintained in this study; the data was kept in a locked cupboard and the transcribed data as electronic copies of the data was stored in a password protected computer to which only the supervisors and the researcher have access.

4.13.4 Anonymity

Anonymity is a procedure adhered to in qualitative research; it refers to the gathering of data from participants without collecting any personal identifying information (Wiles, Crow, Heath &Charles, 2008). The participants identities were protected to ensure anonymity and the following precautions were taken: the names of the participants did not appear in the field notes, transcripts and findings. The researcher used pseudonyms to protect the identities of the schools and the participants and this ensured their anonymity.

4.13.5 Voluntary participation

Voluntary participation is a principle in research, which entails that research participants are not to be compelled into participating in a study (Baez, 2002). Fundamentally, prospective research volunteers must be fully informed of the processes and dangers involved in the study and must consent to participate, primarily in writing (Corden, 2006). The researcher in this study made participants aware of their ability to decline participation or withdraw from the study at any time.

4.14 Conclusion of the chapter

The methodological framework for this investigation was described in this chapter. To identify the influencing factors in learners' career decision-making, the study used a mixed methods design. The concurrent triangulation method was specifically used with the study's quantitative and qualitative components taken into account simultaneously and given equal weight. Additionally, the chapter provides details on a variety of techniques that were used, including sampling strategies and sample sizes, data collection tools, data gathering techniques, and data analysis.

CHAPTER FIVE

QUANTITATIVE RESULTS

5.1 Introduction

This chapter presents the quantitative findings and interpretation of results aligned with the objectives of the study. The research findings are presented according to the study objectives and hypotheses. The quantitative data obtained from questionnaires were analysed using both descriptive and inferential statistics. Descriptive statistics helped describe the views of the respondents on each sub-scale, while the inferential statistics aided in making inferences and drawing conclusions about the study variables. The inferential statistics such as Independent sample t-test, Analysis of Variance (ANOVA), Pearson Product-Moment Correlation and Multiple regression analyses were used to analyse the relationship between the variables of the study. All tests of significance were computed at the level of significance, $\alpha = 0.05$ with the aid of the Statistical Package for Social Sciences (SPSS) version 26.0.

5.2 Response Rate of Questionnaires

The response rate of questionnaires from the study respondents was established and results reported in Table 12.

Table 12: *Response Rate*

Respondents	Questionnaires administered	Questionnaires completed	Return rate (%)
Grade 12 learners	260	204	78.5

Source: Survey data (2021)

The questionnaires were administered on 260 grade 12 learners from six Township Secondary Schools in the Springs Ekurhuleni District, Gauteng South Africa. Out of this number, 204 questionnaires were returned, translating to an overall response rate of 78.5%. This questionnaire return rate was considered excellent based on a recommendation by Creswell (2014) and Neuman (2014) that a response rate of 50% is adequate; 60% is good and; 70% and above is excellent for analysis and reporting in a survey study. Therefore, the questionnaires returned were deemed to be a sufficient representation of the target population. The high response rate recorded was attributed to the fact that the questionnaires were personally administered by the researcher to the

respondents in the classroom with the assistance of the teacher in chargeand follow ups were made where the questionnaires were left behind. In addition, the questionnaire items were developed in such a way that they were easy to understand and this enhanced the response rate from the learners.

5.3 Hypothesis testing

In order to effect conclusions based on the study objectives, each hypothesis was tested after identifying the appropriate statistical test to use depending on the variables investigated. The hypotheses were tested, at the 95% level of confidence, which is at the 0.05 level of significance. The results of the hypotheses tested are presented as follows.

5.4 Psychological Factors and Career Decision-Making

The study sought to examine the relationships between psychological factors and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa. As postulated in the conceptual framework, career decision-making (Dependent Variable) could be influenced by psychological factors (Independent Variable). Psychological factors are operationalised as the components of an individual's personality. In this study, psychological factors are regarded as internal factors within an individual that enables them see themselves as capable or incapable of accomplishing certain tasks. The psychological factors studied include personality types, locus of control, self-efficacy, self-esteem, psychological identity and career interest. The objectives of the study were addressed by, first, using descriptive statistics to explore the psychological factors among the participating learners. Secondly, inferential statistics was used to establish the influence of the psychological factoron career decision-making.

The study also sought to ascertain the level of decision-making on career choices among the 12th Grade learners. Career decision-making involves learners' choosing options from available alternatives regarding what career they would wish to pursue. The study operationalises it as a method of evaluating the advantages and disadvantages, risks and benefits as well as the identified and unidentified choices. The respondents were provided with a four-point Likert-rating scale questionnaire with 18 statements that the respondents were required to make regarding their educational and career plans. The respondents were expected to rate the statements using; strongly agree (4), agree (3), disagree (2) and strongly disagree (1). The mean response rate was computed

after the negatively worded statements were reversed such that the least skill in decision making is denoted by 1 and highest denoted by 4. The results were summarised as depicted in Table 13

Table 13: *Learners' Career Decision-Making Rating Frequencies*

Rating	Level Decision-Making	Frequency	Percentage
3.01 -4.00	High	18	8.8
2.01- 3.00	Moderate	183	89.7
1.01 -2.00	Low	3	1.5
Total		**204**	**100.0**

Source: Survey data (2021)

The results in Table 13 indicates that a significant majority183 (89.7%) of 12th Grade learners exhibited moderate abilities in career decision-making rating with a mean range of 2.01 to 3.00 on a four- point rating scale of 1 to 4. Less than one out of ten (8.8%) of the Grade 12 learners reflected high abilities in career decision-making rating while 1.5% of them displayed a low level of ability in the career decision-making rating. From the descriptive results, it may be concluded that, most of the Grade 12 learners have moderate competencies in career decision making, which is below the expected levels at secondary school level.

5.4.1: Personality Types and Career Decision-Making

Hypothesis 1

There is no significant relationship between personality types and career decision-making of Grade 12 learners in Township Secondary Schools

The intention of this hypothesis was to ascertain the relationships between learners' personality types and career the decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa. The objective was addressed by, first, using descriptive statistics to explore the distribution of the personality types among the respondents. Secondly, inferential statistics were used to establish the influence of personality types on career decision-making.

5.4.1.1 Descriptive Statistics: Level of Personality Traits among the Respondents

The personality types; extroversion, agreeableness, conscientiousness, neuroticism and openness-to-experience, were investigated using a 44 itemed big five inventory measured on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The personality types were investigated separately as extroversion, agreeableness, conscientiousness, neuroticism and openness-to-experience. Table 14 provides a summary of responses on the personality trait indicators.

Table 14: *Respondents Ratings on Level of Personality Traits*

	Items	**SD**	**D**	**N**	**A**	**SA**
1	I am talkative	12 (5.9%)	31 (15.2%)	61 (29.9%)	58 (28.4%)	42 (20.6%)
2	I tend to find fault with others	3 (1.5%)	22 (10.8%)	73 (35.8%)	64 (31.4%)	42 (20.6%)
3	I do a thorough job	9 (4.4%)	32 (15.7%)	81 (39.7%)	61 (29.9%)	21 (10.3%)
4	I am always depressed	70 (34.3%)	65 (31.9%)	38 (18.6%)	16 (7.8%)	15 (7.4%)
5	I am original, come up with new ideas	3 (1.5%)	9 (4.4%)	62 (30.4%)	90 (44.1%)	40 (19.6%)
6	I am reserved	12 (5.9%)	22 (10.8%)	60 (29.4%)	71 (34.8%)	39 (19.1%)
7	I am helpful and unselfish with others	8 (3.9%)	15 (7.4%)	30 (14.7%)	72 (35.3%)	79 (38.7%)
8	I can be somewhat careless	21 (10.3%)	41 (20.1%)	65 (31.9%)	52 (25.5%)	25 (12.3%)
9	I am relaxed, handles stress well	33 (16.2%)	57 (27.9%)	68 (33.3%)	33 (16.2%)	13 (6.4%)
10	I am curious about many different things	4 (2.0%)	9 (4.4%)	55 (27.0%)	56 (27.5%)	80 (39.2%)
11	I am full of energy	8 (3.9%)	18 (8.8%)	61 (29.9%)	46 (22.5%)	71 (34.8%)
12	I am start quarrels with others	17 (8.3%)	20 (9.8%)	61 (29.9%)	50 (24.5%)	56 (27.5%)
13	I am a reliable learner	6 (2.9%)	14 (6.9%)	67 (32.8%)	71 (34.8%)	46 (22.5%)
14	I Can be tense	6 (2.9%)	33 (16.2%)	73 (35.3%)	61 (29.9%)	31 (15.2%)

15	I am a deep thinker	3 (1.5%)	9 (4.4%)	62 (30.4%)	90 (44.1%)	40 (19.6%)
16	I generate a lot of enthusiasm	56 (27.5%)	58 (28.4%)	77 (37.7%)	11 (5.4%)	2 (1.0%)
17	I have a forgiving nature	10 (4.9%)	23 (11.3%)	39 (19.1%)	59 (28.9%)	73 (35.8%)
18	I tend to be disorganized	21 (10.3%)	41 (20.1%)	65 (31.9%)	52 (25.5%)	25 (12.3%)
19	I worry a lot	33 (16.2%)	57 (27.9%)	68 (33.3%)	33 (16.2%)	13 (6.4%)
20	I have an active imagination	2 (1.0%)	12 (5.9%)	38 (18.6%)	82 (40.2%)	70 (34.3%)
21	I tend to be quiet	42 (20.6%)	58 (28.4%)	66 (32.2%)	16 (7.8%)	22 (10.8%)
22	I am generally trusting	15 (7.4%)	26 (12.7%)	51 (25.0%)	67 (32.8%)	45 (22.1%)
23	I tend to be lazy	31 (15.2%)	54 (26.5%)	59 (28.9%)	36 (17.6%)	24 (11.8%)
24	I am emotionally stable, not easily upset	54 (26.5%)	31 (15.2%)	67 (32.8%)	33 (16..2%)	19 (9.3%)
25	I am inventive	12 (5.9%)	37 (18.1%)	90 (44.1%)	41 (20.1%)	24 (11.8%)
26	I have an assertive personality	7 (3.4%)	27 (13.2%)	61 (29.9%)	73 (35.8%)	36 (17.6%)
27	I Can be cold and aloof	26 (12.7%)	47 (23.0%)	48 (23.5%)	47 (23.0%)	16 (17.6%)
28	I persevere until the task is finished	15 (7.4%)	25 (12.3%)	48 (23.5%)	82 (40.2%)	34 (16.7%)
29	I can be moody	12 (5.9%)	37 (18.1%)	41 (20.1%)	90 (44.1%)	24 (11.8%)
30	I value artistic, aesthetic experiences	12 (5.9%)	27 (13.2%)	54 (26.5%)	54 (26.5%)	57 (27.9%)
31	I am sometimes shy, keep to myself	63 (30.9%)	79 (38.7%)	38 (18.6%)	17 (8.3%)	7 (3.4%)
32	I am considerate and kind to almost everyone	4 (2.0%)	10 (4.9%)	41 (20.1%)	72 (35.3%)	77 (37.7%)
33	I do things efficiently	7 (3.4%)	15 (7.4%)	60 (29.4%)	91 (44.6%)	31 (15.2%)
34	I remain calm in tense situations	46 (22.5%)	70 (34.3%)	48 (23.5%)	25 (12.3%)	15 (7.4%)
35	I prefer work that is routine	45 (22.1%)	73 (35.8%)	41 (20.1%)	28 (13.7%)	17 (8.3%)
36	I am outgoing, sociable	33 (16.2%)	37 (18.1%	56 (27.5%)	43 (21.1%)	35 (17.2%)
37	I am sometimes rude to others	22 (10.8%)	49 (24.0%)	58 (28.4%)	31 (15.2%)	44 (21.6%)

38	I make plans and follows through with them	9 (4.4%)	25 (12.3%)	73 (35.8%)	59 (28.9%)	38 (18.6%)
39	I get nervous easily	40 (19.6%)	50 (24.5%)	38 (18.6%)	41 (20.1%)	35 (17.2%)
40	I like to reflect, play with ideas	5 (2.5%)	15 (7.4%)	68 (33.3%)	76 (37.3%)	40 (19.6%)
41	I have few artistic interests	44 (21.6%)	65 (61.9%)	46 (22.5%)	32 (15.7%)	17 (8.3%)
42	I like to cooperate with others	3 (1.5%)	8 (3.9%)	38 (18.6%)	99 (48.5%)	56 (27.5%)
43	I am easily distracted	36 (17.6%)	51 (25.0%)	53 (26.0%)	41 (20.1%)	23 (11.3%)
44	I am sophisticated in art, music, or literature	16 (7.8%)	24 (11.8%)	46 (22.6%)	49 (24.0%)	69 (33.8%)

Key: SD-Strongly Disagree; D-Disagree; U-Undecided; A-Agree and SA-Strongly Agree
Source: Survey Data (2020)

A. Extroversion as a Personality Type

An Extroversion personality is characterized by behaviour such as being self-confident, energetic, social, talkative and warm. The respondents were asked to rate themselves on scale of 1 to 5 to indicate how they felt about themselves. From the Big Five Inventory (BFT) questionnaire, extrovert personality trait indicators were extracted from the 44 items measured by items 1, 6, 11, 16, 21, 26, 31 and 36. Those who scored high on extroversion are excitement seekers, stimulated, cheerful, and they liked people and large groups. However, those who scored low on extroversion preferred to be alone and are generally quiet, reserved, and independent.

From the findings of the study, there was a divergence of opinions among the respondents on the items of extroversion. For example, on whether the respondents are talkative, as was sought by item 1, while 12(5.9%) of the respondents strongly disagreed while 31(15.2%) disagreed that they are talkative, 58(28.4%) and 42(20.6%) agreed and strongly agreed, respectively, that they are talkative. However, some 61 (29.9%) of the respondents remained undecided on this matter. Equally, item 6 sought to reveal the number of respondents who are reserved. On one hand,it emerged that the majority of the respondents (34.8% agreed and 19.1% strongly agreed) that they are reserved, only 12(5.9%) strongly disagreed and 22 (10.8%) disagreed with the statement that they do not talk a lot, suggesting that most of them are of the opinion that they are reserved. However, 60(29.4%) others are not sure whether or not they are reserved.

On the other hand, slightly more than a half 117 (57.3%) of the respondents either agreed or strongly agreed that they are full of energy (Item 11), a sign of extroversion. However, 8 (3.9 %%) of the respondents and 18 (8.8%) strongly disagreed and disagreed, respectively, that they are full of energy, and 61 (29.9%) remained non-committal on this matter. Likewise, item 16 sought to establish what the issue of generating enthusiasm, was while 56 (27.5%) of the respondents strongly disagreed and 58 (28.4%) disagreed that they always generate considerable enthusiasm, 77 (37.7%) of the respondents were undecided, 11 (5.4%) agreed and 2 (1.0%) respondents strongly agreed that they always generated extensive enthusiasm. Likewise, while 42 (20.6%) of the respondents strongly disagreed and 58 (28.4%) others disagreed that they always tend to be quiet, 66 (32.4%) however, others were undecided, but 38 (18.6%) either agreed or strongly agreed that they always tend to be quiet (Item 21). This suggests that the majority of the respondents would easily begin a conversation when with other learners, an indication of a leaning towards an extrovert personality trait.

With regard to item 26 responses indicate that many of the respondents havean assertive personality. This was revealed by 36(17.6%) and 73 (35.8%) of the respondents who strongly agreed and agreed, respectively, and 27(13.2%) who disagreed and 7 (3.4%) who strongly disagreed that they are always assertive. However, more than one out of every four, 61(29.9%), of the respondents remained neutral. Similarly, many of the respondents claimed that they are never shy and mostly talk to people. This was revealed by their responses to item 31, where 63 (30.9%) of the respondents strongly rejected and 79 (38.7%) others rejected the assertion that they are shy and mostly keep to themselves. While 38 (18.6%) of the respondents remained unsure whether or not they are really shy and mostly keep to themselves, only 24 (11.7%) of the respondents either agreed or strongly agreed that they are shy and mostly keep to themselves. Item 36 sought to learn whether or not the respondents are outgoing and sociable. It emerged that 43 (21.1%) of the respondents and 35 (17.2%) others respectively supported and strongly supported, the statement "I am outgoing and sociable". Only 33 (16.2%) of respondents who were surveyed strongly disagreed and 37 (18.1%) others disagreed with the statement, but 56 (27.5%) remained undecided on this matter, suggesting that many of the respondents are outgoing and sociable, suggesting that many of the learners have high extrovert personalities.

B. Agreeableness as a Personality Type

Agreeableness personality traits were extracted from the big five inventory, measured by items 2, 7, 12, 17, 22, 27, 32, 37 and 42. Agreeableness personality denoted how a learner maintains positive interpersonal relations with others. It is characterised by the manner in which learners interact with others in the areas of trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness. Levels of trust, sympathy, helpfulness, and compassion are high in agreeable persons, whereas levels of dis-trustfulness, self-centeredness and antagonism are low in agreeable persons. Respondents who scored high on agreeableness are helpful, considerate, pleasant, cooperative and vice-versa.

The analysis of learners' responses showed a diverse level of agreeableness among the 12th Grade respondents. For instance, the response to item 2 showed that although the majority of the respondents always tend to find fault with others, some of them are not concerned with other people's affairs. This was reflected by the number of respondents who agreed (31.4% agreed, 20.6% strongly agreed) and those who disagreed (10.8% agreed, 1.5% strongly disagreed) with the statement that they tend to find faults with others and 73 (35.8%) respondents remained neutral on the matter. Additionally, response to Item 7 also revealed that although close to three quarters 151 (74.0%) of the respondents either agreed or strongly agreed that they are helpful and unselfish towards others, some 23 (11.3%) accepted that they are not helpful but selfish towards others, but 30 (14.7%) did not indicate whether they are helpful or less selfish towards others. This suggests a mixture of both high and low agreeableness among the respondents.

Similarly, whether the learners always begin quarrels with others, the responses to Item 12 revealed that whereas only 37 (18.1%) of the respondents denied that they always begin quarrels with other people, this signifies a highly agreeable personality trait, however, the majority 106 (52.0%) respondents agreed that they always begin quarrels with other people, suggesting low agreeableness. Though, close to three out of ten 61 (29.9%) respondents chose instead not to respond. Item 17 highlighted evidence that the majority of the respondents have a forgiving nature. This was reflected by 59 (28.9%) and 73 (35.8%) respondents agreed and strongly agreed, respectively, that they have a forgiving nature, meaning that they easily forgive others. Only 33 (16.2%) respondents accepted that they do not have a forgiving nature and 39 (19.1%) remained

neutral on the matter. This finding reflects diverse levels of an agreeableness personality type among the respondents.

Regarding whether respondents are generally trusting (Item 22), it emerged that the majority of the respondents easily trust others. This was captured by 112 (54.9%) respondents who either strongly agreed or agreed with the statement "I am generally trusting". Only 26 (12.7%) respondents disagreed and 15 (7.4%) strongly disagreed that they are generally trusting. However, 51 (25.0%) were not sure whether or not they are really trusting. Likewise, the response to Item 27, which sought to establish whether the respondents have a soft heart regarding other people, shows that respondents were sharply divided on this issue. For instance, while 47 (23.0%) agreed and 36 (17.6%) strongly agreed that they are sometimes cold and aloof, 26 (12.7%) strongly disagreed and 47 (23.0%) disagreed that sometimes they are cold and aloof. This further suggests a mixed rating on the agreeableness personality trait scale.

In addition, the response to Item 32 indicates that whereas 72 (35.3%) of the respondents accepted and 77 (37.7%) others strongly accepted that they are always considerate and kind to almost everyone, 14 (6.9%) respondents either accepted or strongly accepted that they are never considerate and kind to others. However, 41 (20.1%) respondents remained none-committal on this matter. In addition, while only 22 (10.8%) and 49 (24.0%) of the respondents, strongly disagreed and disagreed, respectively that they are sometimes rude to others (Item 37), 75 (36.8%) respondents either agreed or strongly agreed that they are sometimes rude to others. Similarly, a significant majority of the respondents (48.5% agreed and 27.5% strongly agreed) claimed that they were partial to cooperating with others (Item 42). However, only 11 (5.4%) of the respondents either strongly disagreed and disagreed that they were always keen to cooperate with others, but 38 (18.6%) of the respondents remained undecided on the matter.

C. Conscientiousness Personality

In this study, a conscientiousness personality trait is characterized by readiness to adjust to school rules and policies. Learners with the personality trait of conscientiousness usually exhibit features such as self-control, determination, purposefulness, a will to achieve and dependability. Therefore, conscientious learners are organised, strategise proficiently and are reliable on matters that require achievement, while those low in the conscientiousness personality trait are usually careless, negligent and messy. The study investigated the conscientiousness personality trait among the

respondents using their responses on the items 3, 8, 13, 18, 23, 28, 33, 38 and 43, extracted from the 44 big five inventory.

The results of the survey reveal that although many of the learners demonstrated high conscientiousness personality traits, others exhibited low contentiousness. For example, when the study sought to establish whether the respondents do a thorough job (Item 3), it was established that although the majority (29.9% agreed and 10.3% strongly agreed) of the respondents asserted that they always do a thorough job, 9 (4.4%) strongly accepted and 32 (15.7%) accepted that they hardly do a thorough job. However, 81(39.7%) of the respondents were not sure whether or not they really did a thorough job, suggesting a mixture in the rating scale of contentiousness personality trait among the respondents. Responses on Item 8 indicate that although 21 (10.3%) and 41 (20.1%) of the surveyed 12th grade learners, strongly disagreed and disagreed, respectively, that they can be careless, a sign of high conscientiousness personality traits, 77 (37.8%) of the others either agreed or strongly agreed that they can sometimes be careless, indicating a low conscientiousness personality trait. However, 65 (31.9%) of the respondents were not sure whether or not they are careless.

On being reliable learners (Item 13), the results of the survey disclosed that although 67(32.8%) of the respondents remained undecided on the matter, 117 (57.3%) of respondents either agreed or strongly agreed that they are always reliable learners, which reflects high conscientiousness personality traits, but 20 (9.8%) of the respondents accepted that they are never reliable learners, which reflects low conscientiousness personality traits. On the contrary, while only 37(18.1%) and 14(6.9%) of the learners who participated in the study disagreed and strongly disagreed, respectively, that they tend to be disorganized, many 82 (40.2%) of the respondents accepted the claim that they can sometimes be disorganized (Item 18), suggesting that many of them are low in the conscientiousness personality traits ratings. Moreover, the study shows that 54(26.5%) and 31 (15.2%) respondents who participated in the survey disagreed and strongly disagreed, respectively, that they tend to be lazy (Item 23), but some of the respondents accepted (11.8% strongly agreed and 17.6% agreed) that they often tend to be lazy.

With regard to perseverance (Item 28), the study revealed that while 82 (40.2%) and 34(16.7%) of the respondents agreed and strongly agreed, respectively, they often persevere until the task is completed, suggesting that there is evidence of high conscientiousness personality traits, 40

(19.7%) of the respondents accepted that they lack adequate perseverance until a task is completed which suggests low conscientiousness personality trait ratings. Pertaining to whether the respondents do things efficiently (Item 33), there was a glaring difference in opinions among the respondents on this issue. Whereas, 122 (59.9%) either agreed or strongly agreed that they do things efficiently, 140 (43.0%) of the respondents either accepted or strongly accepted that theyey hardly do things efficiently, but 60(29.4%) of them were not really sure of whether or not they are efficient in doing things.

Likewise, the results of the survey indicate that 9(4.4%) respondents strongly disagreed, 25 (12.3%) and disagreed, 73 (35.8%) were undecided, 59(28.9%) agreed and 38 (18.6%) of them strongly agreed on item 38, which sought to ascertain whether or not the respondents made plans and followed through with them. This suggests that many of the respondents indicated that they make plans and follow through with them till the plans are accomplished, which characterises a high conscientiousness personality trait. Also, the response to item 43 shows that many of the learners who participated in the survey are never easily distracted. This was reflected by the few (20.1% agreed and 11.2% strongly agreed) respondents who responded in the affirmative to the item "I am easily distracted" compared with the many who responded to the item in the negative (17.6% strongly disagreed and 25.0% disagreed) to the item. These results show that while some of the respondents rated high on the conscientiousness personality trait scale, others rated fairly low.

D. Neuroticism Personality

A Neuroticism personality trait portrays an individual's differences in adjustment and emotional stability. Neurotic learners experience sensitive negative effects and may not be able to adjust their thoughts effectively. Learners who score high on neuroticism are usually moody and experience feelings of anxiety, worry, fear, anger, frustration, envy, jealousy, guilt, depression and loneliness. On the other hand, learners of low neuroticism personality traits are generally tolerant to stress and less likely to experience negative emotions like fear, sadness, anxiety, and guilt. This study investigated neuroticism personality traits among the Grade 12 respondents in items 4, 9, 14, 19, 24, 29, 34 and 39 from the big five personality trait inventory.

From the results of the survey, it emerged that there was a mixed level of neurotic personality traits among the learners who were surveyed. For instance, the response to item 4 indicated that while

some (31.9% disagreed, 34.3% strongly disagreed) one of the respondents alluded to the fact that he/she is always depressed, which depicts low neuroticism personality traits, a few of them accepted (7.4% strongly disagreed, 7.8% disagreed) that they are always depressed, which suggests high neuroticism personality traits. However, 38 (18.6%) of the respondents remained undecided on this matter, exhibiting a mixed finding. Similarly, the results of the responses on item 9 revealed that while 33 (16.2%) and 13 (6.4%) respondents agreed and strongly agreed, respectively, they are relaxed and handle stress well, 33 (16.2%) strongly disagreed and 57 (27.9%) disagreed that they are normally relaxed and handles stress well. This suggests that while a few of the respondents showed low neuroticism personality traits many of them displayed high neuroticism personality traits, because they worried about issues.

In addition, the results of the responses to Item 14 revealed that while 61 (29.9%) and 31 (15.2%) respondents agreed and strongly agreed, respectively, that they can be tense,6 (2.9%) strongly disagreed and 33 (16.2%) disagreed that they can be tense. Item 19 sought to determine how many respondents always worry very much, an indication of a neurotic personality. The results indicate that while 49 (24.0%) respondents remained neutral, 32 (15.7%) either disagreed or strongly disagreed that they alwaysworryexceedingly, but 123 (60.3%) respondents either agreed or strongly agreed that they always worry substantially. Furthermore, response to item 24 shows that only33 (16.2%) of the respondents agreed and 19 (9.3%) strongly agreed that they are emotionally stable and not easily upset, indicating how low are the neuroticism personality traits. 85 (43.7%) respondents either agreed or strongly denied that they are easily disturbed and emotionally disturbed, which reflects high neuroticism personality traits. This suggests that while some of the respondents showed a low neuroticism personality trait, others indicated a high neuroticism personality trait, because they normally get tense, disturbed and stressed.

Moreover, the results of the survey (Item 34) revealed that 46 (22.5%) of the respondents strongly disagreed, 70 (34.3%) disagreed, 48 (23.5%) were undecided, while 25 (12.3%) agreed and 15 (7.4%) strongly agreed that they remain calm in tense situations. Lastly, the responses to Item 39 show that although the majority (61.3%) of the respondents denied that they frequently and easily get nervous, a significant proportion (18.2%) either agreed or strongly agreed that they easily get nervous.

E. Openness-to-Experience Personality

The study investigated the respondents' openness to experience from items; 5, 10, 15, 20, 25, 30, 35, 40, 41 and 44 from the big five personality trait inventory. The items explored the level of openness to experience among the respondents with regard to their level of creativity, unconventionality and broad-mindedness, which are characterised by being receptive to new ideas, preference for varied sensations, alertness to inner feelings and intellectual curiosity.

In addition, from the results of survey, it emerged that the level of openness-to-experience varied among the 12th Grade respondents. For example, the responses to Item 5 showed that while 90 (44.1%) and 40 (19.6%) respondents agreed and strongly agreed, respectively, that they are innovative and offer with new ideas, 12 (5.9%) respondents either disagreed or strongly disagreed that they are innovative, and advance new ideas, reflecting varied level of openness-to experience personality trait. However, 62 (30.5%) respondents were not sure whether they are innovative and could develop new ideas. Whereas many respondents (45.6% strongly agreed and 33.8% agreed) mentioned that they were curious about many things, only 10 (4.7%) respondents indicated that they were not curious about many things. However, 32 (15.7%) respondents remained undecided whether or not they were curious about many things.

The survey findings, captured from the responses to Item 15, indicate that although about two thirds 136 (66.7%) of the respondents believed that they were deep thinkers, only 13 (6.4%) accepted that they were not deep thinkers, with another 55 (27.0%) uncertain whether or not they were deep thinkers. Likewise, the response to Item 20 show that 70 (34.3%) of the respondents strongly agreed, 82 (40.2%) agreed, 38 (18.6%) were undecided, 12 (5.9%) disagreed and 2 (1.0%) of them strongly disagreed that they had an active imagination. In fact, a sizeable proportion of the respondents accepted that they were not inventive, showing weak openness-to- experience. This was reflected by the response to Item 25, where whereas 90 (44.1%) remained undecided, 12 (5.9%) of the respondents strongly disagreed and 37 (18.1%) disagreed with the statement "I am inventive." Similarly, the results of the study established that 12 (5.9%) of the respondents strongly disagreed, 27 (13.2%) disagreed, 54 (26.5%) were undecided, while 54(26.5%) agreed and 57 (27.9%) strongly agreed that they valued artistic and have aesthetic experiences.

From the findings of the study, it emerged that a respectable proportion of the respondents were in agreement that they did not prefer work that was routine. This was reflected by the response to item 35, where 45 (22.1%) of the respondents strongly disagreed and 73 (35.8%) others disagreed that they preferred routine work compared with 45 (22.0%) of the respondents who either agreed or strongly agreed that they preferred routine work. Item 40 sought to ascertain whether the respondents preferred to reflect or play with ideas, which is an indicator of openness-to-experience personality trait. The findings indicate that only 20 (9.9%) of the respondents generally disagreed that they enjoy reflecting and playing with ideas. However, 68 (33.3%) were undecided, but 76 (37.3%) agreed and 40 (19.6%) strongly agreed that they like to reflect, play with ideas. These findings suggest high level of openness-to-experience personality trait among many of the respondents.

Conversely, it emerged from the responses to Item 41, that whereas many of the respondents denied that they had few artistic interests, only a few of them reported that they had artistic interest. This was shown by 109 (53.5%) respondents who responded in the negative compared to 49 (24.0%) who responded to the affirmative on the statement, "I have a few artistic interests". However, 45 (22.5%) respondents remained non-committal on this matter. Likewise, when the study sought to determine how many of the respondents were sophisticated in art, music or literature, the results of the survey indicated that the majority of 118 translating to 57.8% of the respondents who were affirmative that they were sophisticated, but 40 (19.6%) of them indicated that they were not sophisticated in anyway. However, 46 (22.5%) remained non-committal, suggesting a mixed level of openness-to-experience among the respondents.

5.4.1.2 Personality Traits Ratings

Learners' personality traits ratings were computed from their responses in a five- point Likert scaled questionnaire. Each trait was measured according to the relevant items from the 44 itemed Big Five Personality Test questionnaires. On a scale of 1 to 5, the negatively worded statements were reversed such that 1 represented the least rating while 5 represented the highest level on the personality trait scale. Table 15 presents descriptive statistics of personality traits among the respondents.

Table 15: *Descriptive Statistics of Personality Traits among the 12th Grade Learners*

	N	Mean		Std. Deviation	Skewness	Kurtosis
		M	SE			
Extraversion	204	3.0288	.03549	.50689	.146	-.445
Agreeableness	204	3.6215	.03994	.57047	-.189	-.149
Conscientiousness	204	3.2685	.03745	.53495	.366	-.015
Neuroticism	204	2.8517	.03975	.56769	.248	-.205
Openness to e	204	3.5020	.02876	.41081	.166	.039

Source: Survey data (2021)

The descriptive results presented in Table 15 indicate that the respondents were rated above average in all the five personality traits. However, the respondents reached the highest mean score in the personality trait, agreeableness personality trait (*Mean* =3.62; *SD*=.57), followed by openness to experience personality trait at a mean of 3.50 (*SD*=.41) in the scale of 1 to 5. The lowest mean scores were recorded in neuroticism personality trait (*M* = 2.85; *SD*=.57) and extraversion personality trait (*M* = 3.03; *SD*=.51). However, conscientiousness personality trait was rated at 3.27 with a standard deviation of .53.

These findings suggest that, on average, the majority of 12th Grade learners showed a high level of agreeableness traits such as being courteous, flexible, trusting, good natured, cooperative, forgiving, soft hearted and tolerant. Conversely, that they were rated least in the extraversion personality trait postulates that many of the learners who responded to the survey preferred to be alone and were generally quiet, reserved, and independent.

Therefore, because the means were skewed, indicated that the agreeableness personality had a negative skew. This implies that most of the learners had their personality traits scores less than the sample mean scores of agreeableness personality traits. However, extraversion, conscientiousness, neuroticism and openness to experience personality traits all had a positive skew of means, suggesting that the majority of the learners' recorded higher scores than the means scores in these personality traits.

5.4.1.3 Correlation Analysis of Personality Traits and Career Decision-Making

Pearson's correlation analysis was used to determine the degree of relationships between the big five personality traits and career decision-making of Grade 12 learners. The scores of both the

variables were converted into ratio scaled data by computing mean responses per respondent. The correlations results presented in Table 16 indicates the mean values, standard deviations, and correlations between extroversion, agreeableness, conscientiousness, neuroticism, openness and career decision-making of Grade 12 learners.

Table 16: *Correlation Analysis of Personality Traits and Career Decision Making*

	Descriptive Statistics		Correlation coefficients					
Variable	Mean	SD	1	2	3	4	5	6
Extraversion (1)	3.03	0.51	1	.117	.182**	-.125	.023	.314**
Agreeableness (2)	3.62	0.57		1	.253**	-.396**	.166*	.335**
Conscientiousness (3)	3.27	0.53			1	-.321**	.163*	.457*
Neuroticism (4)	2.85	0.57				1	-.005	-.215**
Openness (5)	3.50	0.41					1	.245**
Career Decision making (6)	2.69	0.24						1

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

The results of the correlation analysis presented in Table 16 show that there is weak-to-moderate correlation between personality traits and career decision-making of Grade 12 learners in both positive and negative magnitudes. There was a statistically significant positive correlation between four personality traits and career decision-making of Grade 12 learners. The four personality traits positively correlated to Career decision-making were; Extraversion (r = .314, p<.01), Conscientiousness (r = .457, p<.01), Agreeableness (r=.335, p<.01) and Openness to experience (r= .245, p<.01). This implies that there is a direct relationship between these four personality traits and career decision-making among the Grade 12 learners. Higher levels of these four personality traits results in increased levels of Career decision-making among the Grade 12 learners. However, the study established that there is statistically significant indirect relationship (r = -.215, p<.01) between Neuroticism personality traits and the Grade 12 learners, implying that higher levels of Neuroticism personality trait in a learner results in low ability in making decision on career choices among the Grade 12 learners. Therefore, the null hypothesis which stated that "*There is no significant relationship between personality types and career decision-making of Grade 12 learners in Township Secondary Schools*", was rejected and the alternative hypothesis accepted.

5.4.1.4 Regression Analysis of Personality Traits on Career Decision-Making

Regression analysis was used to determine the degree of relationship and the level of significance between the big five personality traits and career choices among respondents. Given that the personality traits are not mutually exclusive in individuals, use of a multiple regression analysis is not justified. Hence, the study used simple linear regression where each personality trait sub-type was independently regressed on career decision making scale scores. The summary of regression analysis results is presented in Table 17

Table 17: *Regression of Personality Traits on Career Decision-Making*

	Model Summary		ANOVA		Coefficient		
Variable	R^2	*SEE*	*F*	*p-value*	*b*	*t*	*Sig.*
Extraversion	0.098	0.22	22.06	0.00	0.147	4.697	0.00
Agreeableness	0.112	0.23	25.57	0.00	0.139	5.058	0.00
Conscientiousness	0.209	0.21	53.4	0.00	0.203	7.308	0.00
Neuroticism	0.046	0.23	9.75	0.00	-0.09	-3.123	0.00
Openness	0.06	0.06	12.91	0.00	0.141	3.59	0.00

SEE-Standard Error of Estimate

The values of coefficients of determination, as expressed by R^2 values in Table 17, reveal that the level of influence of the big five personality traits on career decision making varies. For instance, the results of the study show that conscientiousness had the highest influence on career decision making among the 12th Grade learners. It accounted for 20.9%, as signified by *R* Square value of .209 (*SEE*=.21), of the variation in the level of career decision making among the learners. However, Neuroticism personality trait explained the least variation, $R^{2\,=}$ .046 (*SEE*=0.23) in the level of career decision making, suggesting that only 4.6% of variation in the level of decision making among the 12th Grade learners is attributed to their level of neuroticism. Extroversion accounted for 9.8% (R-Square=.098), Agreeableness accounted for 11.2% (R-Square=.112) and Openness to experience accounted for 6% (R-Square=.06).

The differences in the level of the influence of the big five personality traits (extraversion, conscientiousness and neuroticism) on career decision making is further confirmed by the coefficient values. For instance, conscientiousness had the highest coefficient values (*B* = .203, *p* =.000), suggesting that it made the highest impact on career decision making. This indicates that for every one-unit elevation in the level of conscientiousness, there is an ensuing improvement in

career decision making rating by .203 units. Neuroticism personality had the least coefficient value (*B*= -.09, *p*=.000), implying that when this personality trait rises by one unit there would be a successive drop in the career decision making scale, though only by .09 units. Therefore, changes in the level of each of the big five personality traits would result in a significant change in career decision making rating among the 12th Grade learners.

Similarly, it is evident from the Analysis of Variance (ANOVA) results that all the personality traits are indeed significant predictors of career decision making among the 12th Grade learners. However, there were significant differences in career decision depending on the personality traits of the Grade 12 learners. The ANOVA results further indicated that each of the personality traits had a significant F value. This means that the level of each of the personality traits can be used to significantly be relied on to predict the ability of career decision making among the learners.

5.4.2 Locus of Control and Career Decision-Making among Grade 12 Learners

Hypothesis 2

There is no significant relationship between locus of control and career decision-making of Grade 12 learners in Township Secondary Schools

The intention of this hypothesis was to ascertain whether or not there is a significant relationship between locus of control and career decision-making of Grade 12 learners.

The study sought to explore differences in career decision-making scores among the 12th Grade learners on the bases of the locus of control status. The study established the level of distribution of locus of control among the respondents, as in the sub-section below.

5.4.2.1 Descriptive Statistics on Locus of Control among Grade 12 Learners

The respondents were presented with a thirteen itemed point 5 Likert scaled questionnaire. The constructs sought to investigate respondents' opinion on the extent to which they were in control of events that influence their lives. Their level of agreement with each of the statement were rated from strongly disagree (1) to strongly agree (5). Their answers were summarized in percentage frequencies, means and standard deviation, as shown in Table 18

Table 18: *Participants' responses on their Locus of Control*

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Most of the time, I do feel that getting good grades meant a great deal to me	1 (0.5%)	1 (0.5%)	22 (10.8%)	58 (28.4%)	122 (59.8%)
2. I believe that if somebody studies hard enough, he or she can pass any subject	1 (0.5%)	2 (1.0%)	8 (3.9%)	42 (20.6%)	152 (74.0%)
3. I believe that wishing can make good things happen	13 (6.4%)	26 (12.7%)	57 (27.9%)	75 (36.8%)	33 (16.2%)
4. I feel that when I do something wrong there's very little, I can do to make it right	16 (7.8%)	27 (13.2%)	59 (28.9%)	67 (32.8%)	35 (17.2%)
5. I feel that one of the best ways to handle most problems is just not to think about them	34 (16.7%)	44 (21.6%)	38 (18.6%)	48 (23.5%)	40 (19.6%)
6. I feel that I have a lot of choice in deciding on my career path?	2 (1.0%)	13 (6.4%)	30 (14.7%)	80 (39.2%)	79 (38.7%)
7. I often feel that whether or not I did my homework had much to do with what kind of grades I got	11 (5.4%)	21 (10.3%)	63 (30.9%)	67 (32.8%)	42 (20.6%)
8. I feel that when good things happen, they happen because of hard work	5 (2.5%)	6 (2.9%)	19 (9.3%)	42 (20.6%)	132 (64.7%)
9. I usually feel it was almost useless to try at school, because most other learners were just smarter than I am	80 (39.2%)	56 (27.5%)	27 (13.2%)	20 (9.8%)	21 (10.3%)
10. I am the kind of person who believes that planning ahead makes things turn out better	0 (0.0%)	7 (3.4%)	35 (17.2%)	59 (28.9%)	103 (50.5%)
11. Most of the time, I feel that I can change what might happen tomorrow by what I did today	1 (0.5%)	11 (5.4%)	31 (15.2%)	69 (33.8%)	92 (45.1%)
12. I think that people can get their own way if they just keep trying	1 (0.5%	4 (2.0%)	21 (10.3%)	84 (41.2%)	94 (46.1%)
13. I think it's better to be smart than to be lucky	4 (2.0%)	6 (2.9%)	32 (15.7%)	58 (28.4%)	104 (51.0%)

Source: Survey data (2021)

The descriptive results of the study in Table 18 show that the 12th grade learners who took part in the study exhibited varied levels of locus of control that influence their lives and more so career decision making. Their responses depicted different belief system concerning their experiences and the aspects to which they ascribe failure or success. For instance, whereas only 2 (1.0%) of the respondents alluded that getting good grades do not mean a great deal to them, 122 (59.8%) of the respondents strongly agreed and another 58 (28.4%) agreed that most of the time, they felt that getting good grades meant a great deal to them. This indicates that learners with good grades attribute the positive result to the work put in; while those whose good grades meant nothing to them believed that their success was a direct result of their hard work. In addition, a significant majority 196 (94.6%) of the respondents either believed or strongly believed that if they study hard enough, they could pass any subject. This suggests that many of learners were motivated to succeed and were prepared to learn because they believed that they were responsible for their own success.

The results of the study report that while75 (36.8%) and 33 (16.2%) of the respondents believed and strongly believed that wishing could never lead to good thing, 39 (19.1%) of them believed that wishing could make things happen even if you don't work hard. In addition, a half 102 (50.0%) of the learners who participated in the survey reported that "I feel that when I do something wrong there's very little, I can do to make it right," suggesting that these group of learners believed that they could not change anything, from wrong to right, irrespective of how hard they worked.

However, the respondents were sharply divided in their opinion on how to handle problems. This was reflected by 78 (38.3%) of them who did not believe and 88 (43.1%) of them who believe that one of the best ways to handle most problems is just not to think about them, and 38 (18.6%) of them remained undecided on the matter. Nonetheless, it emerged clearly from the survey results that the majority of the learners are aware that deciding on their career choice is squarely reliant on them. This became apparent when close to four out of five 159 (77.9%) of the respondents either agreed or strongly agreed that they have considerable choice in deciding on their career path, with only 15 (7.4%) were of the belief that they are not fully responsible for their own success.

Also, while 67 (32.8%) and 42 (20.6%) respondents agreed and strongly agreed, respectively, that they often felt that whether or not they did their homework, it had much to do with what kind of grades they got, some 32 (15.7%) of them believe that the kind of grades they got was not often dependent on whether or not they did their homework. However, 63 (30.9%) of respondents

remained undecided on the matter. The results of the study established that many of the learners understood that success must be preceded with hard work. This was confirmed by 42 (20.6%) of the respondents who agreed and 132 (64.7%) others who strongly agreed that when good things happen, they happen because of hard work. Only 11 (5.4%) of the respondents did not believe that when good things happen, they happen because of hard work and 19 (9.3%) were undecided.

It emerged from the results of the survey that, on one hand, 21 (10.3%) of the respondents strongly agreed and 20 (9.8%) agreed that they usually felt it was almost useless to try at school, because most learners were just smarter than them. On the other hand, 80 (39.2%) 56 (27.5%) of respondents strongly disagreed and disagreed, respectively, that they usually felt it was almost useless to try at school, because most learners were just smarter than them. This indicates that although the majority of the 12th Grade learners believed that they were responsible for their own success and that hard work is imperative, some of them have given up trying because they believe that other learners are better than them.

On matters of planning, it emerged from the study that 103 (50.5%) of the learners who participated in the survey strongly agreed that they were the kind of people who believed that planning ahead ensures improvement, 59 (28.9%) agreed, but 35 (17.2%) remained non-committal on the matter. Likewise, whereas 12 (5.9%) respondents held a contrary opinion and 31 (15.2%) were not sure, a significant majority 161 (78.9%) of the respondents were in agreement that most of the time, they feel that they could change what might happen the following day by what they did that day. In fact, 84 (41.2%) respondents believed and 94 (46.1%) strongly believed that they could get their own way if they just kept trying. Likewise, many of the learners whose views were sought on being smart, believed that it was wise to be smart than to be lucky. This was inferred from the response to the statement, “I think it’s better to be smart than to be lucky”, where 4 (2.0%) of the respondents strongly disagreed, 6 (2.9%) disagreed, 32 (15.7%) remained undecided, 58 (28.4%) agreed and 104 (51.0%) others strongly agreed to the statement. These findings show that whereas some of the learners based their success on their own work and believed they controlled their success, others attributed their success or failure to outside influences.

From the descriptive statistics, learners exhibited two forms of loci of control, thus, either internal or external type. In testing the hypothesis, an independent-sample t-test was used to compare the mean scores in career decision making ratings between the two groups of locus of control. The

results of the locus of control questionnaire, which were collected as frequencies, were converted into ratio scaled data by computing the mean responses per respondent, where high scale ratings implied internal locus of control and low ratings implied external locus of control, in order to categorise the respondents into appropriate locus of control groups. Internal locus of control respondents were coded as 1, and external locus of control respondents as 2. An independent-sample t-test analysis was conducted to compare the levels of career decision-making between internal and external locus groups. Table 19 show the group statistics on locus of control differences in ccareer decision-making.

Table 19: *Group Statistics on Locus of Control differences*

Locus of Control	N	Mean	Std. Deviation	Std. Error Mean
External Locus Control	104	2.6123	.21310	.02090
Internal Locus Control	100	2.7772	.23217	.02322

The descriptive statistics results of career decision-making among locus of control groups presented in table 19, reveals that the two types of locus of control were almost evenly distributed among the respondents though with those exhibiting external locus of control [104 (51.0%)] being slightly more than those with internal locus of control [100 (49.0%)]. Further, the results established that the learners who exhibited internal locus of control had slightly higher score of 2.78 in the scale 1 to 5, with a standard deviation of .23 and standard error of .02 in career decision-making, compared to their counterparts in external locus of control who had a mean score of 2.61, with a standard deviation of .21 and standard error of .02 in the level of career decision-making. The Independent Sample t-test results are presented in Table 20.

Table 20: *Independent Samples t-test on Career Decision-Making among Locus of Control Groups* **(N=204)**

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Career decision-making	Equal variances assumed	1.399	.238	-5.290	202	.000	-.16497	.03118
	Equal variances not assumed			-5.281	198.904	.000	-.16497	.03124

The results from independent samples t-test presented in Table 20, indicate that, the Levene's Test for Equality of Variances was not significant (p =.238 >.05), hence, the assumption of equality of variances was upheld. In this regard, it was evident that there was statistically a significant difference [*t* (202) = -5.290, *p*<.01] in Career Decision-Making between the two groups of learners, with those having internal locus of control tendencies being more effective in career decision-making than their counterparts who exhibited external locus of control. Therefore, the null hypothesis that "*there is no significant relationship between locus of control and career decision-making among Grade 12 learners in Township Secondary Schools*" was rejected. Thus, the alternative hypothesis was accepted, which indicate that locus of control plays a major role in influencing career decision making among Grade 12 learners.

5.4.2.2 Evaluation of the effect size

In addition, the study sought to assess the importance of the findings of locus of control in career decision making by calculating the effect size, which reflected the strength of association between the variables. The effect size, calculated using eta squared, is given by:

$$\text{Eta squared} = \frac{t^2}{t^2+(N1+N2-2)} \quad \text{was } .122$$

The calculated Eta squared value of .122 when expressed in percentage (%) suggests that 12.2% of the variability in career decision making is attributed to the learner's locus of control. Hence, the study result confirms that among 12th; Grade learners who participated in the survey (*N* = 204), there was a statistically significant difference between those who exhibited internal locus of control (*M*=2.77, *SD*=.23) and those with external locus of control (*M*=2.61, *SD* =.21), *t* (202) = -5.290, *p*< .05. However, Eta effect size value (η^2= .122) suggested low practical significance. Overall, the study concluded that although there is a fairly low effect size, there is a statistically significant relationship between locus of control and career decision-making among Grade 12 learners. This suggests that the extent to which people sense that they are in control of events has an influence on how they make career decisions, with those exhibiting internal locus of control being relatively effective in career decision making than their counterparts who have external locus of control.

5.4.3 Learners' Self-Efficacy and Career Decision-Making

Hypothesis 3

There is no significant relationship between self-efficacy and career decision-making of Grade 12 learners in Township Secondary Schools

This aim of this hypothesis was to examine the relationship between self-efficacy and career decision-making among Grade 12 learners in Township Secondary Schools. The learners' self-efficacy was operationalized their attitudes, abilities and cognitive skills on how they perceive situations and how they behave in response to different situations. It was measured using ten itemed self-report measure of self-efficacy questionnaire. The responses were indicated in a 4-point Likert scale; *Not at all true, Hardly true, Moderately true*and *Exactly true*. The views of the respondents were summarised in percentage frequencies, means and standard deviation in table 21.

Table 21: *Responses on Self-efficacy*

Items	1	2	3	4	Mean	SD
1. I can learn what is being taught in class	2 (1.0%)	9 (4.4%)	117 (57.4%)	76 (37.3%)	3.31	0.60
2. I can figure out anything if I try hard enough	1 (0.5%)	10 (4.9%)	53 (26.0%)	139 (68.1%)	3.63	0.61
3. If I practiced every day, I could develop just about any skill	0 (0.0%)	13 (6.4%)	41 (20.1%)	150 (73.5%)	3.67	3.37
4. Once I've decided to accomplish something that's important to me, I keep trying to accomplish it, even if it is harder than I thought.	2 (1.0%)	23 (11.3%)	78 (38.2%)	100 (49.0%)	3.37	0.73
5. I am confident that I will achieve the goals that I set for myself	3 (1.5%)	11 (5.4%)	33 (16.2%)	156 (76.5%)	3.69	0.65
6. When I'm struggling to accomplish something difficult, I focus on my progress instead of feeling discouraged.	8 (3.9%)	44 (21.6%)	78 (38.2%)	71 (34.8%)	3.08	0.88

7. I will succeed in whatever career path I choose.	4 (2.0%)	17 (8.3%)	33 (16.2%)	146 (71.6%)	3.63	0.75
8. I believe hard work pays off.	3 (1.5%)	5 (2.5%)	19 (9.3%)	173 (84.8%)	3.83	0.56
9. I think no matter who you are, you can significantly develop your level of skills and talent.	2 (1.0%)	7 (3.4%)	26 (12.7%)	164 (80.4%)	3.80	0.56
10. I can change my basic level of ability considerably.	0 (0.0%)	9 (4.4%)	100 (49.0%)	92 (45.1%)	3.44	0.60
Mean average level of self-efficacy					**3.55**	**0.34**

Key: 1-Not at all true; 2-Hardly true; 3-Moderately true; 4-Exactly true
Source: Survey data (2021).

The descriptive results of the study presented in Table 21 indicate that the level of self-efficacy among the 12thGrade learners is generally high. This was reflected by a mean rating of 3.55 (SD=0.34) in the scale of 1 to 4, suggesting that the majority of the respondents had a strong belief in their capacity to execute behaviours necessary to produce specific performance attainments. However, the results revealed a varied response among the respondents. For instance, whereas more than a half 117 (57.4%) of the respondents moderately believed that they could learn what was being taught in class, 76 (37.3%) exactly believed that they could learn what was being taught in class, but 11 (5.4%) held the belief that they never or hardly are able to learn what was being taught in class. Equally, while only 11 (5.4%) of the respondents agreed that they could hardly or not at all figure out anything even if they tried hard enough, but 53 (26.0%) and 139 (68.1%) of them indicated that they could moderately and exactly, figure out anything if they tried hard enough. This reflected a response rate of3.63 (SD=0.61), which is an indicator of a high self-efficacy.

In addition, while only 13 (6.4%) respondents reported that irrespective of the efforts they put they were not able to develop certain skills, a significant majority of 191 translating to 93.6% of the respondents stated that if they practiced every day, they could either moderately or fully develop just about any skills. This item attracted a mean response rating of 3.67 (SD=3.37), which reflects a relatively higher confidence level in their ability to exert control over their own abilities. Similarly, at a mean response rate of 3.37 (SD=0.73), majority 178 (87.2%) of the respondents expressed a strong belief that once they had decided to accomplish something which they believed

to be important to them, they always kept trying to accomplish it until they do, even if it was more difficult than they anticipated. Only 25 (12.3%) respondents accepted that they hardly or never kept trying to accomplish what they had decided to accomplish if the task proved to be more difficult than they thought it would be.

On goal achievement, 14 (6.9%) of the respondents accepted that they hardly or never achieved the goals that they set for themselves. However, 33 (16.2%) and 156 (76.5%) of the respondents stated that it was moderately true and exactly true, respectively, that they were always confident that they would always achieve the goals that they set for themselves. This indicates a fairly high self-efficacy level of 3.69 with a standard deviation of0.65. In addition, 173 (84.8%) of the respondents expressed a strong belief that hard work paid off, which reflected a high level (M=3.83; SD=0.56) of self-efficacy. Moreover, while only 9 (4.4%) respondents held a different opinion, a significant majority 164 (89.4%) of the respondents fully believed that no matter who one was, one could always significantly develop one's level of skills and talent. In addition, while only 21 (10.3%) of the respondents did not believe that they would succeed in whatever career path they chose, 33 (16.2%) and146 (71.6%) moderately and fully respectively believed, that they would always succeed in whatever career path they chose, translating to a mean rating of 3.63 (SD=0.75).

Conversely, the findings of the survey indicate that more than one out of every four 52 (25.5%) of the surveyed 12^{th} grade learners accepted that when they struggle to accomplish something difficult, they always felt discouraged and rarely focused on their progress. Furthermore, close to a half 100 (49.0%) of the respondents, only moderately believed that they could change their basic level of ability considerably. These findings conclude that although the majority of the learners who participated in the survey exhibited deeper interest in the activities in which they participated, they have a strong sense of commitment to their interests and have high confidence in their ability to succeed in what they choose to engage in. However, some respondents appeared to avoid challenging tasks, and believed that difficult tasks and situations were beyond their capabilities, and focus on personal deficiencies and negative outcomes and quickly lost confidence in personal abilities. This suggests a mixture of learners with low and high self-efficacy.

In testing the hypothesis, *there is no significant relationship between self-efficacy and career decision-making among Grade 12 learners*, correlation and regression analysis was used. As

explained by Johnson and Creech (1983) and Sullivan and Artino (2013), the mean response across a set of questions of rating scale responses in each item was computed to create an approximately continuous variable, within an open interval of 1 to 4, suitable for parametric analysis. High scale ratings imply high perceived self-efficacy, and low scale ratings imply a low level of self-efficacy among learners. On the one hand, the 0.05 a priori significance level was chosen so that if the actual p-value was less than 0.05, the null hypothesis would be disproved and it would be determined that a significant difference exists. On the other hand, it would be concluded that there is no significant difference if the p-value was higher than 0.05. The predictor variable was learners' self-efficacy, while the response variable was career decision-making. The direction and size of the linear relationship between the variables was first calculated using correlation, as shown in Table 22.

Table 22: *Correlations between Self-Efficacy and Career Decision-Making*

		Self-efficacy	Career Decision-Making
Self-efficacy	Pearson Correlation	1	.400**
	Sig. (2-tailed)		.000
	N	204	204
Career decision-making	Pearson Correlation	.400**	1
	Sig. (2-tailed)	.000	
	N	204	204

**. Correlation is significant at the 0.01 level (2-tailed).

According to the Pearson product-moment correlation coefficient values shown in Table 22, there is an almost average positive correlation between self-efficacy and vocational decision-making among Grade 12 learners that is statistically significant (n=204, r=.400, p=.000.05). The null hypothesis could be rejected because the p-value was less than 0.05, which was previously considered to be a significant level. As a result, it was determined that Grade 12 learners in Township Secondary Schools have a substantial relationship between self-efficacy and professional decision-making. Therefore, learners in Grade 12 who have stronger self-efficacy make better career decisions. Consequently, the null hypothesis that claimed, "*There is no significant relationship between self-efficacy and career decision-making of Grade 12 learners in*

Township Secondary Schools", has been rejected. Thus, the alternative hypothesis has been accepted.

However, to estimate the level of influence of learners' self-efficacy on career decision-making among Grade 12 learners, a coefficient of determination was computed using regression analysis and the result is as shown in Table 23.

Table 23: *Model Summary on Regression Analysis of Influence of Self-Efficacy and Career Decision-Making*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.400[a]	.160	.156	.21777

a. Predictors: (Constant), Self-efficacy

The model summary results presented in Table 23 reveals that learners' self-efficacy accounted for 15.6%, as signified by Adjusted R^2=.156, of the variability in career decision-making among Grade 12 learners. These findings imply that variation in the learners' self-efficacy explains about 15.6% of the variability in the effectiveness of career decision-making among 12th Grade secondary school learners. This is a sizeable amount of influence of self-efficacy on career decision making among Grade 12 learners. These findings reveal the importance of higher self-efficacy on learners' ability to make effective career choice decision. In addition, Table 24 shows the coefficient values of the regression model on the influence of learners' self-efficacy on career decision making.

Table 24: *Coefficients-Influence of Self-Efficacy and Career Decision-Making*

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	1.701	.161		10.572	.000	1.384	2.018
	Self-efficacy	.280	.045	.400	6.197	.000	.191	.369

a. Dependent Variable: Career decision-making

$Y = \alpha + \beta x + \varepsilon$

Career Decision-Making = 1.701 + 0.280x + error term.

From the model presented in Table 24, it is evident that the slope coefficient for learners' self-efficacy is 0.280, implying that career decision-making improves by 0.280 units for each one unit increase in the learners' self-efficacy. Similarly, an increase on the level of learner's self-efficacy by one standard deviation results in an improvement in Career decision-making by .400 standard deviations.

However, to investigate whether learners' self-efficacy was statistically significant predictor in career decision-making, Tabachnick & Fidell (2001) conducted Analysis of Variance, in line with the recommendation, as shown in Table 25.

Table 25: *ANOVA results on Self-Efficacy and Career decision-making*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.821	1	1.821	38.399	.000[b]
	Residual	9.580	202	.047		
	Total	11.401	203			

a. Dependent Variable: Career decision-making

b. Predictors: (Constant), Self-efficacy

Multiple regression Analysis of Variance (ANOVA) results were evaluated using the null hypothesis that multiple R in the population equals zero in order to determine the statistical significance of the outcome. The results of the ANOVA provide sufficient information to draw the conclusion that the population regression line's slope is not zero, indicating that learners' self-efficacy is a significant predictor of career decision-making, F (1, 202) =38.399, p=.000.05; Adjusted R2=.156. As a result, it was determined that learner self-efficacy had a statistically significant influence on career decision-making. This implies that learners who have high levels of self-efficacy make better decisions regarding their career choices.

5.4.4 Self-Esteem and Career Decision-Making among Grade 12 Learners in Secondary Schools

Hypothesis 4

There is no significant relationship between self-esteem and career decision-making of Grade 12 learners in Township Secondary Schools

The aim of this hypothesis was to ascertain the relationship between self-esteem and career decision-making among Grade 12 learners in Township Secondary Schools. The learners' self-esteem was operationalised by their beliefs concerning themselves, such as the evaluation of personal appearance, attitudes, feelings and conduct. It was measured using a ten itemed Likert scaled questionnaire, with scores ranging from 1 (strongly disagree) to 5 (strongly agree).The responses were summarised in percentage frequencies, means and standard deviations and presented in Table 26.

Table 26: *Learners' Response on Self-Esteem*

	Items	1	2	3	4	5	M	SD
1	I feel that I am a person of worth, at least on an equal plane with others	5 (2.5%)	5 (2.5%)	45 (22.1%)	102 (50.0%)	47 (23.0%)	3.89	0.87
2	I feel that I have a number of good qualities	7 (3.4%)	9 (4.4%)	41 (20.1%)	88 (43.1%)	59 (28.9%)	3.90	0.99
3	All in all, I am inclined to feel that I am a failure	67 (32.8%)	54 (26.5%)	40 (19.6%)	23 (11.3%)	20 (9.8%)	2.39	1.31
4	I am able to do things as well as most people	4 (2.0%)	11 (5.4%)	43 (21.1%)	87 (42.6%)	59 (28.9%)	3.91	0.94
5	I feel I do not have much to be proud of	57 (27.9%)	46 (22.5%)	40 (19.6%)	48 (22.5%)	15 (7.4%)	2.59	1.30
6	I have a positive attitude about myself	6 (2.9%)	15 (7.4%)	29 (14.2%)	53 (26.0%)	101 (49.5%)	4.12	1.09
7	In general, I am satisfied with myself	6 (2.9%)	15 (7.4%)	30 (14.7%)	56 (27.5%)	97 (47.5%)	4.09	1.09
8	I wish I could have more respect for myself	21 (10.3%)	24 (11.8%)	36 (17.6%)	54 (26.5%)	69 (33.8%)	3.62	1.33
9	I certainly feel useless at times	60 (29.4%)	37 (18.1%)	45 (22.1%)	41 (20.1%)	21 (10.3%)	2.64	1.36
10	At times I think that I am no good at all	60 (29.4%)	27 (13.2%)	47 (23.0%)	36 (17.6%)	34 (16.7%)	2.79	1.46
	Mean average rating on the level of self-esteem						3.39	0.44

Key: 1-Strongly Disagree; 2-Disagree; 3-Neutral; 4-Agree; 5-Strongly Agree

From the findings presented on Table 26, it is evident that the 12th grade learners who participated in the survey had generally above average self-esteem ratings. This was reflected by a composite mean rating of 3.39 (SD=0.44) in the scale of 1 to 5. This suggests that many of them displayed a fairly high sense of personal worth or value by decidedly appreciating themselves regardless of the circumstances in which they find themselves. For example, at a mean response rate of 3.89 (SD=0.87), close to a quarter 47 (23.0%) of the respondents strongly agreed that they felt that they are persons of worth, at least on an equal plane with others, additionally, 102 (50.0%) others

agreed, 45 (22.1%) remained undecided and only 10 (5.0%) either disagreed or strongly disagreed that they are people of worth.

Moreover, a majority of 147, representing 72.0% of the respondents, either agreed or strongly agreed (M=3.90; SD=0.99) to the statement "I feel that I have a number of good qualities". This implies that more than half of the respondents have a high self-confidence, an indication of high self-esteem. Only 16 (7.7%) respondents looked down on the good qualities they have. Likewise, while only 43 (21.1%) respondents either accepted or strongly accepted that all in all, they are inclined to feel that they are failures, a sizeable proportion 121 (59.3%) of the respondents rejected the claim that they were inclined to feel that they were failures, suggesting that most of the respondents had a high self-confidence. Similarly, at a mean rate of 3.91 (SD=0.94), a significant proportion of the learners had a feeling of competence and belief that they were able to do things as well as most people. This was reflected by 4 (2.0%) who strongly disagreed, 11 (5.4%) who disagreed, 43 (21.1%) who remained neutral, 87(42.6%) agreed and 59 (28.9%) respondents who strongly agreed that they were competent and able to accomplish what most people were able to.

On the contrary, the survey results indicate that close to one out of every three 63 (31.9%) respondents reported that they felt they did not have much to be proud of. Nonetheless, about half 106 (50.4%) of the respondents denied the claim that they felt they do not have much to be proud of. In addition, 101 (49.5%) of the respondents strongly insisted that they had a positive attitude towards themselves, 53 (26.0%) agreed, but only 21 (10.3%) respondents reported that they did not have positive attitude towards themselves. This reflected a mean rating of 4.12 (SD=1.09), indicating an overwhelming correlation by the majority of the respondents, that they had positive attitudes towards themselves. Furthermore, although 21 (10.3%) of the respondents held divergent opinion and 30 (14.7%) of the respondents remained non-committal, a significant majority 153 (75.0%) of the respondents indicated that, they were satisfied with themselves. This indicates a response rate of 4.09 with a standard deviation of 1.09.

On self-respect, the findings of the survey show that 69 (33.8%) of the respondents strongly agreed and another 54 (26.5%) of the respondents agreed that they wished that they could have more respect for themselves. This implies that there was lack of self-respect by the majority of the respondents. However, as a show of a sense of belonging, 21 (10.3%) of the respondents strongly denied and 24 (11.8%) others denied that they wished that they could have had more respect for

themselves. This indicates that they believed that they already had sufficient self-confidence. However, 36 (17.6%) of the respondents were undecided.

The results of the survey show that there is a sense of despair among some of the learners. This was revealed by a mean response rate of 2.64 (SD=1.36), with 41 (20.1%) and 21 (10.3%) respondents agreeing and strongly agreeing that they certainly feel useless at times. On the contrary, 97 (47.5%) respondents reported that they did not feel useless at all, but 45 (22.1%) remained undecided on the matter. Conversely, while some 70 (34.3%) respondents either agreed or strongly agreed that at times they think that they are not good at all and47 (23.0%) remained non-committal, many 87 (42.6%) respondents vehemently rejected the claim that at times they think that they are not good at all. This item attracted a mean rating of 2.76 (SD=1.46), suggesting that many of the respondents believe that they are useful.

In testing the hypothesis that, *there is no significant relationship between self-esteem and career decision-making among Grade 12 learners*, correlation and regression analysis were employed. On the one hand, the mean response for each item on the self-esteem scale was calculated to provide a continuous variable, suited for parametric analysis, with a range of 1 to 5, where high scale ratings indicated high perceived levels of self-esteem. The null hypothesis was rejected and it was determined that a significant difference exists if the p-value was less than 0.05, which was the Apriori significance level. On the other side, it would be concluded that there is no significant difference if the p-value was higher than 0.05. The response variable was chosen as career decision-making, while the predictor variable was learner self-esteem. As indicated in Table 27, the direction and strength of the linear relationship between the variables were first assessed using correlation between the variables.

Table 27: *Correlations between Self-Esteem and Career Decision-Making*

		Self-esteem	Career decision-making
Self-esteem	Pearson Correlation	1	.274**
	Sig. (2-tailed)		.000
	N	204	204
Career decision-making	Pearson Correlation	.274**	1
	Sig. (2-tailed)	.000	
	N	204	204

**. Correlation is significant at the 0.01 level (2-tailed).

According to Table 27, a Pearson product-moment correlation coefficient analysis shows that among Grade 12 learners, self-esteem and professional decision-making are positively correlated and statistically significant (n=204, r=.274, p=.000.05). The null hypothesis may be rejected because the established p-value (0.000) was less than 0.05, which is adequate evidence. It was later determined that among Grade 12 learners in Township Secondary Schools, self-esteem and career decision-making had a substantial relationship. Therefore, learners in Grade 12 who have higher self-esteem make better career decisions. However, a coefficient of determination was calculated using regression analysis, and the findings are displayed on Table 28 in order to determine the degree of influence that learner self-esteem has on career decision-making among Grade 12 learners.

Table 28: *Model Summary on Regression Analysis of Influence of Self-Esteem and Career Decision-Making*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.274[a]	.075	.071	.22847

a. Predictors: (Constant), Self-esteem

The model summary in Table 28 indicates that learners' self-esteem accounted for 7.1% (Adjusted R^2=.071) of the variability in career decision-making among Grade 12 learners. These findings

suggest that variation in the learner's level of self-esteem explains about 7% of the variability in career decision-making ratings among 12th grade secondary school learners. In addition, Table 29 shows the coefficients values of regression model on the influence of learner's self-esteem in career decision making.

Table 29: *Coefficients-Influence of Self-Esteem and Career Decision-Making*

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations
Model	B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound	Part
(Constant)	2.189	.125		17.448	.000	1.942	2.436	
Self-esteem	.149	.037	.274	4.050	.000	.076	.221	.274

a. Dependent Variable: Career decision-making

$Y = \alpha + \beta x + \varepsilon$

Career Decision-Making = 2.189 + 0.149x + error term.

From the model, it is evident that the slope coefficient for learner's self-esteem is 0.149, which means that Career decision-making improves by 0.149 units for each one unit rise in the learner's level of self-esteem. There is 95% confidence that rise in the level of career decision-making for every increase in the level of self-esteem is within the interval of (.076 and .221). Similarly, an increase in the level of learners' self-esteem by one standard deviation, there is a resultant improvement of Career decision-making ratings by .274 standard deviations, as reflected by Beta value of .274. The other useful information in this regression results is correlation coefficients, which gives an indication of the contribution of learners' self-esteem to the total R squared. The part correlation value of .274, when squared suggests that learners' self-esteem uniquely explains 7.5% of the variance in career decision-making, which is equal to the R Squared value for the model (0.075 or 7.5 per cent explained variance).

However, to investigate whether a learner's self-esteem was a statistically significant predictor to Career decision-making, Analysis of Variance was conducted, in line with the recommendation by Tabachnick & Fidell (2001), as shown in Table 30.

Table 30: *ANOVA results on Learner's Self-Esteem and Career Decision-Making*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.856	1	.856	16.405	.000[b]
	Residual	10.545	202	.052		
	Total	11.401	203			

a. Dependent Variable: Career decision-making

b. Predictors: (Constant), Self-esteem

To assess the statistical significance of the result, a regression Analysis of Variance (ANOVA) results was interpreted with the null hypothesis that multiple R in the population equals 0. From the ANOVA output, there is enough evidence to conclude that the slope of the population regression line is not zero, suggesting that learners' self-esteem is a significant predictor of Career decision-making, F (1, 202) =16.405, p=.000 <.05; Adjusted R^2=.071. Therefore, the null hypothesis, which stated that, "*There is no significant relationship between self-esteem and decision-making of Grade 12 learners in Township Secondary Schools*", has been rejected. It was concluded that there is a significant direct relationship between self-esteem and decision-making of Grade 12 learners in Township Secondary Schools. This implies that learners with high self-esteem are likely to be more effective in decision making on career choice than their counterparts with a lower esteem.

5.4.5 Career Interest and Career Decision-Making of Grade 12 learners in Township Secondary Schools

Hypothesis 5

There is no significant relationship between career interest and career decision-making of Grade 12 learners in Township Secondary Schools

The purpose of this hypothesis was to determine the connection between career interest and job choice. Nine career interest sub-themes, including creative, biotic, conventional, expressive, investigative, operational, social, enterprising, and adventurous, were used to operationalize career interest.

Table 31a: *Responses on Artistic Career Interest*

Activity	Like	Dislike
Design packaging of a new product	82 (40.2%)	122 (59.8%)
Create portraits or photograph	109 (53.4%)	95 (46.6%)
Write lyrics or compose music of any kind	108 (52.9%)	96 (47.1%)
Design stage scenery for a play	96 (47.1%)	108 (52.9%)
Design furniture, clothing, or poster	109 (53.4%)	95 (46.6%)
Overall Mean Response	101 (49.5%)	103 (50.5%)

From the results of the study, on average, the learners like and dislike an artistic career in almost equal proportions; 101 (49.5%) and 103 (50.5%) of the respondents like and dislike, respectively. Specifically, the majority like to create portraits or photograph, write lyrics or compose music of any kind and design furniture, clothing, or posters. On the contrary, the majority do not like design packaging of a new product and designing stage scenery for a play**.**

Table 31b: *Responses on Biotic Career Interest*

Activity	Like	Dislike
Watch documentary films or TV programs about animals or other creatures	117 (57.4%)	87 (42.6%)
Observe or record the growth of plants	74 (36.3%)	130 (63.7%)
Collect or make biological specimens	49 (24.0%)	155 (76.0%)
Track or observe wild animals	78 (38.2%)	126 (61.8%)
Observe or record the habits of small animals like ants	69 (33.8%)	135 (66.2%)
Overall Mean Response	77(37.7%)	127 (62.3%)

On a Biotic career, the study indicates that on average, careers in this field were generally disliked by the majority of the 12th grade learners. Only 77 (37.7%) of the respondents were partial to a Biotic career in general, while the rest disliked Biotic career. Precisely, under this career, the majority of the respondents only had interest in watching documentary films or TV programs about animals or other creatures. On the contrary, the majority of the respondents were found to have no interest to observe or record the growth of plants, collect or make biological specimens, observe and record the habits of small insects like ants nor to track nor observe wild animals.

Table 31c: *Responses on Conventional Career Interest*

Activity	**Like**	**Dislike**
Regularly make neat or update an address book	103 (50.5%)	101 (48.5%)
Check paperwork or products for errors or flaw	105 (51.5%)	99 (48.5%)
Keep detailed records of expenses	107 (52.5%)	97 (47.5%)
Handle daily affairs in office	91 (44.6%)	113 (55.4%)
Classify or put different kinds of items in order	139 (68.1%)	65 (31.9%)
Overall Mean Response	109 (53.4%)	95 (46.6%)

The results of the survey show that the majority of the respondents had interests in conventional careers. For instance, it emerged that the majority of the learners had no interest in handling daily affairs in an office. However, most of them were interested in making or updating an address book, checking paperwork or products for errors or flaws, keeping detailed records of expenses and classifying or putting different kinds of items in order.

Table 31d: *Responses on Expressive Career Interest*

Activity	Like	Dislike
Sing or traditional dance for others	126 (61.8%)	78 (38.2%)
Become a public figure	132 (64.7%)	72 (35.3%)
Dress myself out of the ordinary	158 (77.5%)	46 (22.5%)
Attend an event as an award presenter	148 (72.5%)	56 (27.5%)
Become the image endorsement of a product or company	144 (70.6%)	60 (29.4%)
Overall Mean Response	142 (69.6%)	62 (30.4%)

On expressive career interest, the results of the survey show that the majority of the respondents had interests career. It was apparent that the majority of the learners had an interest in all activities related to career. For example, 158 (77.5%) of the respondents indicated that they liked to dress themselves out of the ordinary, 148 (72.5%) of the respondents reported that they liked to attend an event as an award presenter and 144 (70.6%) of the respondents posited that they liked to become the image endorsement of a product or company. Equally, the majority of the respondents had an interest in singing or perform a traditional dance for others or become a public figure.

Table 31e: *Responses on Expressive Career Interest*

Activity	Like	Dislike
Explore the causes of a phenomenon or an incident	119 (58.3%)	85 (41.7%)
Verify a scientific theory with practice	97 (47.6%)	107 (52.5%)
Learn about different scientific theories via books or lecture	102 (50.0%)	102 (50.0%)
Study a certain theory in depth through a series of references	103 (50.5%)	101 (49.5%)
Apply science to practical problems	104 (51.0%)	100 (49.0%)
Overall Mean Response	105 (51.5%)	99 (48.5%)

The findings of the study reported that the majority of the respondents had interests in investigative career. For instance, it emerged that the majority of the learners had no interest in verifying scientific theory. However, most of them had an interest in exploring the causes of a phenomenon or an incident, and learn about different scientific theories.

Table 30f: *Responses on Operational Career Interest*

Activity	**Like**	**Dislike**
Maintain a computer network	101 (49.5%)	103 (50.5%)
Shape metal or plastic with tools	68 (33.3%)	136 (66.7%)
Operate machines or devices	97 (47.5%)	107 (52.5%)
Assemble instruments or meter accurately	79 (38.7%)	125 (61.3%)
Refit computers or other equipment in order to improve their efficiency	112 (54.9%)	92 (45.1%)
Overall Mean Response	91 (44.8%)	113 (55.2%)

With regard to an operational career, the findings report that on average, activities in this field are generally disliked by the majority of the 12th grade learners. Only 91 (44.8%) of the respondents liked an operational career in general, while the rest dislike it. On one hand, the majority of the respondents only displayed an interest in computers or other equipment in order to improve their efficiency. On the other hand, the majority of the respondents were found to have no interest in maintaining a computer network, shaping metal or plastic with tools, operating machines or devices and assembling instruments or meter accurately.

Table 31g: *Responses on Social Career Interest*

Activity	Like	Dislike
Talk with people to help make them happy	174 (85.3%)	30 (14.7%)
Help tutoring neighborhood children	152 (74.5%)	52 (25.5%)
Care for poor, sick or lonely people	180 (88.2%)	24 (11.8%)
Work for a charity	161 (78.9%)	43 (21.1%)
Encourage colleagues when they are feeling down or faced with difficulties	167 (81.9%)	37 (18.1%)
Overall Mean Response	167 (81.9%)	37 (18.1%)

With regard to an interest in a social career, the results of the survey show that an overwhelming majority of the respondents had interests in this career. The findings indicate that the majority of the learners displayed a keen interest in all activities related to this career. For example, 174 (85.3%) respondents said that they liked to make people happy, 180 (88.2%) of the respondents posited that they liked to care for the poor, sick or lonely people and 167 (81.9%) of the respondents specified that they liked to encourage colleagues who are feeling down or faced with difficulties. As a consequence, the majority of the respondents stated that they had an interest in helping, by tutoring children and working for a charity.

Table 31h: *Responses on Enterprising Career Interest*

Activity	Like	Dislike
Plan for the developmental orientation of a team or company	127 (62.3%)	77 (37.7%)
Take part in marketing social practices	125 (61.3%)	79 (38.7%)
Allocate the human, material or financial resources of an organization	116 (56.9%)	88 (43.1%)
Meet important executives or leaders	138 (67.6%)	66 (32.4%)
Pay attention to the sales of listed companies	121 (59.3%)	83 (40.7%)
Overall Mean Response	125 (61.3%)	79 (38.7%)

The results of the survey showed that the majority of the respondents had interests in entrepreneurship as a career. It was evident that more than a half of the learners had an interest in all activities related to an entrepreneurship. The activity that attracted the highest interest, was interacting with public figures, where 138 (67.6%) of the respondents reported that they liked to meet important executives or leaders. Similarly, 127 (62.3%) of the respondents indicated that they

liked to plan for developmental orientation of a team or company and 125 (61.3%) of the respondents observed that they liked to participate in marketing social practices. For the same reason, the majority of the respondents had an interest in allocating human, material or financial resources of an organisation and monitoring the sales of listed companies. Overall, the majority of the respondents, liked this career, save for 79 (38.7%) of the respondents who posited that they did not have an interest entrepreneurship.

Table 31i: *Responses on Adventurous Career Interest*

Activity	Like	Dislike
Undertake criminal investigation work	106 (52.0%)	98 (48.0%)
Engage in dangerous rescue work like fire-fighting	81 (39.7%)	123 (60.3%)
Become a professional race driver	82 (40.2%)	122 (59.8%)
Explore uninhabited areas	68 (33.3%)	136 (66.7%)
Climb a perilous peak	89 (43.6%)	115 (56.4%)
Overall Mean Response	85 (41.7%)	119 (58.3%)

Lastly, on adventurous career, the study findings indicates that on average, this career is disliked by the majority of the 12th grade learners. Only 85 (41.7%) of the respondents liked adventurous career in general, while the rest disliked the career. In addition, the majority of the respondents only had an interest to undertake criminal investigative work. Contrary, the majority of the respondents were found to had no interest in dangerous rescue work like fire fighting, professional racing drivers, exploring an uninhabited areas and mountain climbing.

In testing the hypothesis that, "*there is no significant relationship between career interests and career decision-making of Grade 12 learners in Township Secondary Schools*", multiple linear regressions were used to analyse the acquired data in order to see if there was any impact on professional decision-making and job inclinations. Investigated career interests included those in the arts, biology, convention, expression, investigation, operations, social, business, and adventure. The response variable was the decision-making process for a career, while the predictor variable was the career interests. The direction and amplitude of the linear correlations were first

calculated by correlating the characteristics of career interests and career decision-making, as shown in Table 32.

Table 32: *Correlations between Career Interest and Career Decision-Making*

	N	Pearson Correlation *Career Decision-Making*
Artistic Career Interest	204	.412**
Biotic Career Interest	204	.296**
Conventional Career Interest	204	.342**
Expressive Career Interest	204	.353**
Investigative Career Interest	204	.303**
Operational Career Interest	204	.284**
Social Career Interest	204	.428**
Enterprising Career Interest	204	.535**
Adventurous Career Interest	204	.465**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

As indicated in Table 32, there is typically a direct correlation between students in the 12th grade's career interests and decision-making. The strength of the connections between the career-related variables, however, varies. For instance, the relationship between the interest in an entrepreneurial career and the decision to pursue it was found to be the strongest (r=.535, n=204, p.001), followed by the relationship between the interest in an adventurous career and the decision to pursue it (r =.465, n=204, p.001), but the interest in an operational career had the weakest relationship with the decision to pursue it (r (204) =.284, p.001, two-tailed). As a result, the 12th grade learners' career decision-making was positively correlated and statistically significant with all other aspects of their career preferences. Particularly, occupational preferences and decision-making on career

choice shown to be positively correlated. This shows that learners with high levels of career interest make decisions about their careers more quickly, while learners with low levels of career interest struggle to make decisions about their careers. Additionally, model summaries and regression equations were created with the decision-making process as the dependent variable and the specific characteristics of career interest as the predictor variables. Table 33 shows a summary of regression analysis results.

Table 33: *Regression results on Career Interests and Career Decision-Making*

	B	Std. Error	Beta	t	Sig.	Part corr.
(Constant)	1.745	0.088		19.868	0.001	
Artistic Career Interest	0.119	0.042	0.17	2.805	0.006	0.07
Biotic Career Interest	0.058	0.045	0.077	1.302	0.195	0.065
Conventional Career Interest	0.052	0.043	0.078	1.224	0.222	0.075
Expressive Career Interest	0.054	0.039	0.084	1.397	0.164	0.056
Investigative Career Interest	0.04	0.038	0.064	1.05	0.295	-0.004
Operational Career Interest	-0.003	0.039	-0.005	-0.082	0.935	0.103
Social Career Interest	0.077	0.04	0.123	1.927	0.045	0.195
Enterprising Career Interest	0.146	0.04	0.251	3.659	0.003	0.168
Adjusted R^2	.421					
F-ratio	17.403**	df1=9				
		df2=194				

As shown in Table 33, the entry approach was used to determine that the model could account for 42.1% (Adjusted R Square =.421) of the variance in the learners' 12th graders' career decision-making. A multiple regression Analysis of Variance (ANOVA) result was analysed to determine the statistical significance of the outcome, with the null hypothesis being that multiple R in the population equals 0. The study's findings demonstrate that the model attained statistical

significance, F (9, 194) = 17.403, p.01, indicating that it is a significant predictor of professional decision-making among learners in the 12th grade.

However, investigation of Beta values reveals that the extent of influence that each factor of career interest has on choosing a vocation varies. For instance, of these eight factors, Enterprising Career Interest contributes most uniquely (beta=-.251) and has the biggest effect. This shows that when a learner's entrepreneurial career desire increases by one standard deviation, their ability to make career decisions also improves by.251 standard deviations, and vice versa. Equally, an increase in Social career Interest of one standard deviation would lead to a.125 (beta = -.125) standard deviation improvement in career decision-making.

The part correlation coefficients, which indicate how much each aspect of career interest contributed to the overall R squared, are another potentially helpful piece of information in this regression result. For instance, the results indicate that Artistic Career Interest has a part correlation coefficient of.150, Biotic Career Interest has a part correlation coefficient of.070, Conventional Career Interest has a part correlation coefficient of.065, Expressive Career Interest has a part correlation coefficient of.075, Investigative Career Interest has a part correlation coefficient of.056, Operational Career Interest has a part correlation coefficient of -.004, Social Career Interest has a part correlation coefficient of.103,

The other potentially useful piece of information in this regression result is the part correlation coefficients, which gives an indication of the contribution of each of the aspects of career interest to the total R squared. For example, the results show that Artistic Career Interest has a part correlation coefficient of .150, Biotic Career Interest of .070, Conventional Career Interest of .065, Expressive Career Interest of .075, Investigative Career Interest of .056, Operational Career Interest of -.004, Social Career Interest of .103, Enterprising Career Interest of .195 and Adventurous Career Interest had part correlation of .168. These values can be squared to determine how much of the total variance in professional decision-making is explained by the variable alone and how much R squared would decrease if the variable were excluded from the model. For instance, Enterprising Career Interest, which makes the largest unique contribution to the model, accounts for 3.8% of the variance in career decision-making, and Adventurous Career Interest accounts for 2.8% of it. However, the difference in career decision-making was only marginally (.001%) explained by operational career interest. It is noteworthy that because overlaps or shared

variance were eliminated, the total R Squared value for the model (0.421 or 42.1% explained variance) did not equal the sum of the squared part correlation values.

In addition to these findings, Table 33's regression equations were taken in order to forecast the influence of career interest on learners in the 12th grade who were making career decisions. The study was guided by a general regression prediction model, as presented below:

Career Decision-Making = $\beta 0+\beta_1 X_1+\beta_2 X_2 + \beta_3 X_3+ \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6+ \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \varepsilon$

Where; X_1=Artistic, X_2 = Biotic, X_3 = Conventional, X_4 = Expressive, X_5 =Investigative, X_6 =Operational, X_7 =Social, X_8 =Enterprising and X_9 =Adventurous and ε being error term. Thus, the predicated optimum level of career decision making among 12th grade learners in secondary school was represented by:

Career Decision-Making=1.745 units + .119 $X_1 units$ + .058 $X_2 units$ + .052 $X_3 units$ + .054 X_4 units + .040 $X_5 units$ - .003 $X_6 units$ + .077 $X_7 units$ + .146 X_8 units + .121 X_9 units + error

The model's coefficients show that when all other variables are held constant, how much career decision-making shifts in response to a change in a career interest. The study's findings, however, indicate that while some career interest factors significantly affected career decision-making when they were increased by one unit, others did not have a meaningful impact. For example, the following had significant unstandardized coefficient values: Artistic Career Interest (B =.119; t=2.805, p=.006), Social Career Interest (B =.077; t=1.927, p=.045), and Enterprising Career Interest (B =.146; t=.3.659, p=.003). These results suggest that a one-unit increase in career interest results in a significant increase in career decision-making.

From the model, the coefficients indicate the extent to which career decision-making changes with a change of an aspect of career interest when all other variables are held constant. However, the results of the study show that whereas some of the aspects of career interest had significant change on career decision-making when increased by one unit, others did not cause any significant change. For instance, those with significant unstandardized coefficient values included Artistic Career Interest (*B* =.119; *t*=2.805, *p*=.006), Social Career Interest (*B*=.077; *t*=1.927, *p*=.045) and Enterprising Career Interest (*B* = .146; *t* =.3.659, *p*=.003), implying that change on career interest by one unit causes a significant increase on career decision-making. However, the coefficients for the following career interests were not significant: Biotic Career Interest (B=0.058; t=1.302,

p=.195); Conventional Career Interest (B=.052; t=.1.224, p=.222); Expressive Career Interest (B=.054; t=.1.397, p=.164); Investigative Career Interest (B=.04; t=.1.05, p=.295); and Operational Career Interest.

F (9, 194) = 17.403, p.01, R2 Adjusted =.421, however the model was statistically significant. This shows that the model significantly predicts the profession choices of students in the 12th grade.

Using a multiple regression analysis, the investigated null hypothesis was that H_0: $\beta_1=\beta_2=\beta_3=\beta_4=\beta_5=\beta_6=\beta_7=\beta_8=\beta_9=0$ and the corresponding alternative hypothesis being H_1: at least one $\beta_i \neq 0$. If the null hypothesis is true, then from $E(Y) = \beta_0 + \beta_{i=1-9} X_{i=1-9}$ the population mean of Y is β_i for every X value, which indicates that X (career interest) has no influence on Y (career decision-making) and the alternative being that career interest has a statistically significant influence on career decision-making. Based on the findings of the regression equation in Table 5.25, the null hypothesis, which stated that, *career interests have no statistically significant effect on career decision-making among the 12th grade learners*, was rejected. Hence, the alternative hypothesis which states that career interest has significant effect on career decision-making among 12th grade learners was adopted. It was therefore concluded that career interest have a significant positive effect on career decision-making among the 12th grade learners in Secondary Schools.

5.5 Psychological Identity and Decision-Making of Grade 12 learners

Hypothesis 6

There is no significant relationship between psychological identity and decision-making of Grade 12 learners in Township Secondary Schools

The aim of this hypothesis was to ascertain the correlation between psychological identity and career decision-making among Grade 12 learners in Township Secondary Schools. The learners' psychological identity was measured using a 5 Likert scaled questionnaire. The items were rated from "*not important to my sense of who I am*" (1) to "*extremely important to my sense of who I am*" (5), pivoted on "*somewhat important to my sense of who I am*" (3). Mean response across responses in each item was computed to create a continuous variable, within an open interval of 1 to 5, suitable for parametric analysis, where high scale ratings implied high perceived levels of psychological identity and vice versa. To test the null hypothesis that, *there is no significant*

relationship between psychological identity and career decision-making among Grade 12 learners, a priori significance level was set at 0.05, such that if the *p*-value was less than 0.05 then the null hypothesis would be rejected and a conclusion reached that a significant relationship between the variables exists. On the other hand, if the *p*-value was greater than 0.05, then it would be concluded that a significant relationship does not exist. Table 34 shows correlation analysis results between psychological identity and career decision-making.

Table 34: *Correlations between Psychological Identity and Career Decision-Making*

		Psychological Identity	Career decision-making
Psychological Identity	Pearson Correlation	1	.622**
	Sig. (2-tailed)		.000
	N	204	204
Career decision-making	Pearson Correlation	.622**	1
	Sig. (2-tailed)	.000	
	N	204	204

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 34, a Pearson product-moment correlation coefficient analysis results indicates that there is a statistically significant (n=204, r=.622, p=.000 <.05) positive correlation between psychological identity and career decision-making among the Grade 12 learners. Given that the *p*-value established was less than 0.05, there was sufficient evidence to reject the null hypothesis. Subsequently, it was concluded that there is a significant relationship between psychological identity and career decision-making among Grade 12 learners in Township Secondary Schools. A stronger psychological identity is associated to more effective career decision-making among Grade 12 learners and weaker psychological identity among learners could lead to inappropriate career decision making.

However, to estimate the level of influence of a learner's psychological identity on career decision-making among Grade 12 learners, a coefficient of determination was computed using regression analysis and the result is as shown in Table 35.

Table 35: *Model Summary on Regression Analysis of Influence of Psychological Identity and Career Decision-Making*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622[a]	.387	.384	.18594

a. Predictors: (Constant), Psychological Identity

The model summary indicates that learner's psychological identity accounted for 38.4% (Adjusted R^2=.384) of the variability in career decision-making among Grade 12 learners. These findings suggests that variation in the learner's level of psychological identity explains about 38% of the variability in career decision-making ratings among 12th grade secondary school learners, which is a large influence. Furthermore, Table 36 Shows the coefficients values of regression model on the influence of learner's psychological identity on career decision making.

Table 36: *Coefficients-Influence of Psychological Identity and Career Decision-Making*

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations
Model	B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound	Part
(Constant)	1.690	.090		18.846	.000	1.513	1.867	
Psychological Identity	.256	.023	.622	11.302	.000	.211	.300	.622

a. Dependent Variable: Career decision-making

$Y = \alpha + \beta x + \varepsilon$

Career Decision-Making =1.690 + 0.256x + error term.

From the model, it is clear that the slope coefficient for learners' psychological identity is 0.256, which means that Career decision-making improves by 0.256 units for each one unit rise in the learners' level of psychological identity. There is 95% confidence that rise in the level of career decision making for every increase in the level of psychological identity, is within the interval of (.211, .300). Likewise, an increase in the level of learners' psychological identity by one standard deviation there is a resultant improvement of Career decision-making ratings by .622 standard deviations, as reflected by Beta value of .622. In addition, the part correlation value of .622 suggests that learners' psychological identity uniquely explains 38.6% of the variance in career

decision-making, which is equal to the *R* Squared value for the model (0.386 or 38.6% explained variance).

However, to investigate whether learner's psychological identity was a statistically significant predictor to Career decision-making, Analysis of Variance is shown on Table 37 and interpreted.

Table 37: *ANOVA- Influence of Learner's Psychological Identity on Career Decision-Making*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.417	1	4.417	127.742	.000[b]
	Residual	6.984	202	.035		
	Total	11.401	203			

a. Dependent Variable: Career decision-making

b. Predictors : (Constant), Psychological Identity

The results of the ANOVA output presented in Table 37 indicates that, there is sufficient evidence to conclude that the slope of the population regression line is not zero, suggesting that learners' psychological identity is a significant predictor of Career decision-making, F (1, 202) =127.742, p=.000 <.05; Adjusted R^2=.384. The p-value obtained (0.000) is less than the set p-value of 0.05. Therefore, the null hypothesis, which stated that, "*There is no significant relationship between psychological identity and decision-making of Grade 12 learners in Township Secondary Schools*", was rejected. Therefore, it was concluded that there is a significant positive relationship between psychological identity and decision-making of Grade 12 learners in Township Secondary Schools. This suggests that learners with a high psychological identity, those who take time to explore the available opportunity before making a career decision, are likely to be more effective in decision making on career choice than their counterparts with a lower psychological identity.

5.6 Social Factors and Career Decision-Making

The study sought to examine the correlation between social factors and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa. As hypothesised in the conceptual framework, career decision-making (Dependent Variable) is influenced by social factors (Independent Variable). Social factors were envisaged as family related factors (influence of older siblings, parental level of education) as well as school

related factors (peer influence, teachers influence and career information services). Hence, social factors included the influence of older siblings, parental level of education, peer influence, teachers' influence and career information services. The objective was addressed by, first, using descriptive statistics to explore the social factor among the respondents. Secondly, inferential statistics were used to establish the influence of the social factorson career decision-making.

Table 38: *Responses on Peer Influence*

Peer influence	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M	SD
I take important decisions without being influenced by my friends' suggestions	0 (0.0%)	4 (2.0%)	28 (13.7%)	68 (33.3%)	104 (51.0%)	4.3	.79
I like to choose a career of my own, irrespective of my friends' advice.	5 (2.5%)	3 (1.5%)	15 (7.4%)	57 (27.9%)	124 (60.8%)	4.4	.88
I get more interested in my studies when my friends motivate me.	18 (8.8%)	42 (20.6%)	48 (23.5%)	53 (26.0%)	43 (21.1%)	3.3	1.3
I chose a career that is similar to my friends.	105 (51.5%)	43 (21.1%)	23 (11.3%)	18 (8.8%)	15 (7.4%)	2.9	1.2
I get encouraged by how my friends solve difficult issues.	29 (14.2%)	33 (16.2%)	65 (31.9%)	49 (24.0%)	28 (13.7%)	3.1	1.2
Mean average level of peer influence						3.42	.57

The descriptive results of the study show that there is a considerable influence of peers on career decision-making. This was reflected by a composite mean of 3.42 (SD=0.57) in the peer influence scale of 1 to 5. This suggests that a number of the 12th grade learners were influenced by their peers during their career decision-making process. However, their response varied on individual items of peer influence questionnaire, for example, while 68 (33.3%) of the respondents reported this while, 104 (51.0%) of the informants, reported that they took important decisions without being influenced by their friends, 4(2.0%) of the respondents conceded that their friends' suggestions influenced important decisions that they made on their career choice, but 28 (13.7%) of the respondents remained neutral on the matter. In addition, although the majority 124 (60.8%) of the respondents were adamant (*M*=4.4; *SD*=.88) that they liked to choose their own careers, irrespective of their friends' advice, 8 (4.0%) of the respondents accepted that their friends' advice played an important role in shaping their career choice decision. However, 15 (7.4%) of the respondents remained non-committal on the matter.

Moreover, the determination of the study indicates that peer influence among the learners can be positive. For instance, at a mean rate of 3.3 (SD-1.3), a significant proportion 96 (47.1%) of the learners who participated in the study either agreed or strongly agreed that they become more interested in their studies when their friends motivate them. Only 18 (8.8%) and 42 (20.6%) strongly disagreed and disagreed, respectively, that they get more interested in their studies when their friends motivate them, but 48 (23.5%) were undecided on this matter. Similarly, some 33 (16.2%) respondents concurred that they would rather choose a career that is similar to their friends, translating to a peer influence rating of 2.9 with a standard deviation of 1.2. Although 29 (14.2%) and 33 (16.2%) respondents strongly refuted and refuted, respectively, that they are encouraged by how their friends solve difficult issues, 77 (37.7%) either agreed or strongly agreed that they usually are encouraged by how their friends solve difficult issues. This translates to a large peer influence (M=3.1; SD=1.2). However, 65 (31.9%) of the respondents were undecided on this matter.

Table 39: *Responses onTeachers influence*

Teachers influence	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M	SD
Information I got from my teacher helped me to choose a career	15 (7.4%)	24 (11.8%)	42 (20.6%)	70 (34.3%)	53 (26.0%)	3.6	1.2
My teacher gives me suggestions about careers.	12 (5.9%)	21 (10.3%)	44 (21.6%)	72 (35.3%)	55 (27.0%)	3.7	1.2
My teacher encouraged me to take my current subjects.	35 (17.2%)	65 (31.9%)	40 (19.6%)	37 (18.1%)	27 (13.2%)	2.8	1.3
My teacher motivates me to take own initiative.	13 (6.4%)	18 (8.8%)	42 (20.6%)	71 (34.8%)	60 (29.4%)	3.7	1.2
My teacher informs me about different opportunities	9 (4.4%)	8 (3.9%)	35 (17.2%)	69 (33.8%)	83 (40.7%)	4.0	1.1
Mean average level of Teachers' influence						3.42	.57

The results of the survey indicate teacher influence on career decision making among the 12th grade learners is generally high. This was reflected by a composite rating of 3.42 in the scale of 1 to 5. This means that teachers usually inform advice, motivate and support learners in choosing

specific subjects, which are compatible with learners' inclinations and abilities as identified by the teachers. For instance, at a mean rating of 3.6 (*SD*=1.2), more than a quarter 53 (26.0%) of respondents strongly agreed and 70 (34.3%) agreed that the information they received from their teachers helped them to choose a career. Only 39 (19.2%) respondents either disagreed or strongly disagreed that the information that they had received from their teachers helped them to choose a career, however, 42 (20.6%) were undecided on the matter. Likewise, 127 (62.3%) of the respondents were in agreement (*Mean*=3.7; *SD*=1.2) that their teachers usually gave them suggestions about careers, 44 (21.6%) were not sure whether their teachers had generally given them suggestions about careers, but only 33 (16.2%) of the respondents claimed that their teachers hardly gave them any suggestion concerning careers.

On the contrary, the survey revealed that close to a half 100 (49.1%) of the learners who participated in the study rejected the assertion that teachers encourage learners to select a particular subject. Only 64 (31.3%) respondents accepted that their teachers had encouraged them to choose their current subjects, but 40 (19.6%) remained non-committal. However, whereas 31 (15.2%) respondents held a contrary opinion, 131 (64.2%) agreed (*Mean*=3.7; *SD*=1.2) that their teachers had motivated them to take their own initiative, but 42 (20.6%) were not sure whether or not their teachers had really motivated them to take their own initiative in career decision-making.

Lastly, what emerged clearly from the results of the study indicated that the majority of 152 equating to 74.5% of the learners who participated in the study concurred that their teachers had always informed them about the different opportunities, translating to a mean response rate of 4.0 with a standard deviation of 1.1. Only17 (8.3%) respondents denied that their teachers had always advised them about the different opportunities, suggesting that the majority of the learners accepted that their teachers had an influence on their career paths.

Table 40: *Responses on Career information service*

Indicators	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M	SD
I searched the internet for information about careers.	8 (3.9%)	14 (6.9%)	26 (12.7%)	53 (26.0%)	103 (50.5%)	4.1	1.1
I spoke to a career counsellor at my school about career.	48 (23.5%)	60 (29.4%)	38 (18.6%)	34 (16.7%)	24 (11.8%)	2.6	1.3
School career days influenced my career choice.	31 (15.2%)	51 (25.0%)	48 (23.5%)	34 (16.7%)	40 (19.6%)	3.0	1.3
I attended job shadowing or work-site visits.	41 (20.1%)	70 (34.3%)	29 (14.2%)	28 (13.7%)	36 (17.6%)	2.8	1.3
I completed a questionnaire to find out about my interests and abilities.	23 (11.3%)	40 (19.6%)	33 (16.2%)	53 (26.0%)	55 (27.0%)	3.4	1.4
Mean average rating career information services						3.18	0.78

The findings of the study show that career information services had a fairly respectable composite rating (*Mean*=3.18; *SD*=0.78), indicating it had a considerable influence on 12th grade learners career decision-making process. For example, 103 (50.5%) respondents strongly agreed and 53 (26.0%) agreed that they rely on searching on the internet for information about careers, reflecting a high influence rating of 4.1 with a standard deviation of 1.1. Only 22 (10.5%) of the respondents indicated that they rarely or never at all depend on the internet to search for any information about careers.

However, it emerged that only a few learners consult their career counsellor teachers for information on career choices. This was proved by the fact that, whereas only 34 (16.7%) respondents agreed and 24 (11.8%) of the respondents strongly agreed that they had at least spoken to a career counsellor at their school, the majority, 108 (52.9%) of the respondents either accepted or strongly accepted that they had never spoken to a career counsellor at their school. However, 38 (18.6%) of the respondents did not respond, reflecting a modest rating of 2.6 (SD=1.3) by this item. Moreover, while only 74 (36.3%) of the respondents either agreed or strongly agreed that career days in their schools influenced their career choice, many others 82 (40.2%) of the respondents disapproved that career days in their schools had any influence on their career choices. This item attracted a mean rating of 3.0 with a standard deviation of 1.3, with 48 (23.5%) respondents being undecided on this matter.

On work-site visits, the results of the survey shows that only a small proportion of the respondents took time to pay visits to sites, where work of their related career was performed. This was revealed by a relatively low rating of 2.8 (SD=1.3) on the item "I attended job shadowing or work-site visits", with 41 (20.1%) respondents strongly disagreeing, 70 (34.3%) disagreeing, 29 (14.2%) being undecided, 28 (13.7%) agreeing and 36 (17.6%) strongly agreeing that they have attended job shadowing or work-site visits.

With regards to the use of a questionnaire as a method to comprehending an individual's career interest, the results of the survey reported that it was used by a considerable number of learners. This was mirrored by a rating of 3.4 with a standard deviation of 1.4 on the item, which sought to establish whether the respondents had completed any questionnaire investigating their career interest. Results of the survey indicated that while 23 (11.3%) of the respondents and 40 (19.6%) of the respondents strongly agreed and agreed, respectively, the majority, 108 (53.0%) of the informants, asserted that they had completed a questionnaire to find out about their interests and abilities. This suggests that use of a questionnaire as a way of career information service was used.

Table 41: *Responses on Influence of older siblings*

Indicators	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M	SD
I share a special bond with my sibling(s).	18 (8.8%)	16 (7.8%)	33 (16.2%)	51 (25.0%)	86 (42.2%)	3.8	1.3
I enjoy the same activities and style as my sibling(s).	28 (13.7%)	31 (15.2%)	58 (28.4%)	42 (20.6%)	45 (22.1%)	3.2	1.3
I often go to my older sibling(s) for support and advice.	32 (15.7%)	45 (22.1%)	47 (23.0%)	32 (15.7%)	48 (23.5%)	3.1	1.4
My older sibling(s) career choice influences my career direction.	60 (29.4%)	55 (27.0%)	30 (14.7%)	27 (13.2%)	32 (15.7%)	2.6	1.4
I established my individuality apart from my sibling(s).	12 (5.9%)	31 (15.2%)	48 (23.5%)	56 (27.5%)	57 (27.9%)	3.6	1.2
Mean average rating on the influence of older siblings						3.3	0.8

With regard to the influence of older siblings on career decision making, the results of the survey revealed that it had a considerable amount of influence. This was mirrored by a composite mean

rating of 3.3 (*SD*=0.8) on the scale of 1 to 5, indicating that there was a general agreement among the respondents that their older siblings swayed their process of decision-making on career choice. For example, 86 (42.2%) of the respondents strongly agreed and 51 (25.0%) agreed that they shared a special bond with their sibling(s), reflecting a mean rating of 3.8 (*SD*=1.3). Only 34 (16.6% of the respondents maintained that they do not share any special bond with their sibling(s), but 33 (16.2%) remained non-committal on the item. In effect, the results of the study showed that while only 59 (28.9%) of the learners who participated in the survey held a contrary position, many 87 (42.7%) respondents were in agreement (*Mean*=3.2; *SD*=1.3) that they enjoyed the same activities and style as their sibling(s).

Likewise, 32 (15.7%) of the respondents agreed and 48 (23.5%) of the respondents strongly agreed that they often go to their older sibling(s) for support and advice, reflecting a mean rating of 3.1 with a standard deviation of 1.4. Only 77 (37.8%) respondents confirmed that they never go to their older sibling(s) for support and advice. On the contrary, it emerged that the majority of 115 representing 56.4% of the learners who participated in the survey denied that their older sibling(s) career choice had influenced their career direction. Only 59 (28.9%) of the respondents were in agreement that their older sibling(s) career choice had influenced their career direction, translating to a mean rating of 2.6 (SD=1.4). Indeed, at a mean rating of 3.6 (SD=1.2), a significant majority 113 (55.4%) of the respondents acknowledged that they had established their individuality away from their sibling(s).

The hypothesis that stated that, “there is no significant relationship between social factors and career decision-making of Grade 12 learners in township Secondary Schools” was tested. The social factors investigated include: the influence of older siblings, peer influence, teachers influence and career information services. The career decision-making was the response variable, while social factors was the predictor variable. First, the correlation between the aspects of social factors and career decision making was calculated to determine the direction and magnitude of the linear relationships, as shown in Table 42.

Table 42: *Correlations between Social Factors and Career Decision-Making*

Correlations		**1**	**2**	**3**	**4**	**5**
Career decision-making	(1)	1	.514**	.643**	.607**	.566**
Peer Influence	(2)		1	.287**	.265**	.179*
Teacher Influence	(3)			1	.342**	.327**
Career Information Service	(4)					.346**
Influence of older siblings	(5)					1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

According to Table 42 above, the results of correlation analysis indicates that there is generally a direct but varied correlation between social factors and career decision-making among the 12th grade learners. However, the magnitude of the relationships varies among the aspects of social factors, though the differences are not significant. For example, the correlation between teacher influence and career decision-making was established to be the strongest (r=.643, n=204, p<.01), followed by the relationship between career information services and career decision-making (r =.607, n=204, p<.01), but peer influence had the lowest relationship with career decision-making, r (204) = .514, p<.01. The influence of older siblings also had a significant direct relationship with career decision-making among the 12th grade learners (r=.566, n=204, p<.01). This suggests that there is generally a positive correlation between social factors and decision-making on career choice, implying that a stronger inclination to social factors is associated to a faster decision making on career choice among the 12th grade learners.

In addition, model summary and regression equations were generated where the predictor variables were the individual aspects of career interest and dependent variable being decision making on career choice. Table 43 shows summary of regression analysis results.

Table 43: *Regression of Social Factors and Career Decision-Making*

Variable	B	Std. Error	Beta	t	Sig.	Part corr.
(Constant)	1.34	0.063		21.131	0.001	
Peer Influence	0.115	0.016	0.276	7.021	0.006	.260
Teacher Influence	0.108	0.012	0.363	8.767	0.005	.324
Career Information Service	0.094	0.013	0.309	7.467	0.002	.276
Influence of older siblings	0.084	0.012	0.291	7.152	0.004	.265
Adjusted R^2	.722					
F-ratio	132.756**	df1=4				
		df2=199				

* P-value<.05 ** p-value < .01 and *** p-value < .001

Using the multiple regression enter method, the results on Table 43 indicates that, social factors accounted for 72.2% (Adjusted *R* Square = .722) of the variance in career decision-making among the 12th grade learners. This is a fairly large influence on career decision making. However, a multiple regression Analysis of Variance (ANOVA) was used to establish the significance of the model. Hence, the results were interpreted with the null hypothesis using multiple *R* in the population that equals 0. The results of the study show that the model reached statistical significance, F (4, 199) = 132.756, p<.01. This suggests that social factors are a significant predictor of career decision-making among the 12th grade learners.

Further examination of Beta values indicates that the individual aspects of social factors vary in their level of influence on career decision-making. For instance, of the four variables, teacher influence made the leading unique contribution of beta = .363. This implies that when teacher influence is stepped up by one standard deviation, the learners' ability to make career decision improves by .363 standard deviations and vice versa. Equally, improvement in career information services to the learners by one standard deviation, would result in the improvement of career decision-making by .309 (*beta* = .309) standard deviations among the learners. Relatedly, career decision-making would rise by .276 and .291 standard deviations when peer influence and older siblings influence rises by one standard deviation, respectively.

In addition, the study explored the contribution of each of the aspects of social factors to the total R squared. The results show that peer influence has a part correlation coefficient of .260, teacher influence of .324, career information service of .276 and influence of older siblings had part correlation of .265. Squaring these values indicates how much of the total variance in the career decision-making is uniquely explained by the variable and the extent to which *R* squared would drop if the variable is not included in the model. For instance, teacher influence, which has the highest contribution to the model uniquely, explains 10.5% and peer influence having the least effect only uniquely explains 6.8% of the variance in career decision-making. Equally, career information services and the influence of older siblings uniquely explains 7.6% and 7.0% of the variance in career decision-making among the 12th grade learners, respectively. These values imply that *R* squared would drop by 10.5%, 7.6%, 7.0% and 6.8% when teacher influence, career information service, influence of older siblings and peer influence are not included in the model, respectively.

Lastly, the regression equations were extracted from Table 4.9 to help predict the influence of social factors on career decision-making among the 12th grade learners. A general regression prediction model guided the objective as follows:

Career Decision-Making = $\beta_0+\beta_1X_1+\beta_2X_2 + \beta_3X_3+ \beta_4X_4 + \varepsilon$

Where; X_1=Peer Influence, X_2 = Teacher Influence, X_3 = Career Information Service, X_4 = Influence of older siblings and ε being error term. Hence, the predicated optimum level of career decision-making, given social factors and assuming other variable constant among 12th grade learners in secondary school was represented by:

Career Decision-Making=1.340 units + .115 X_1*units* + .108 X_2*units* + .094 X_3*units* + .084 X_4 units + error

From the model, the coefficients values indicate how much career decision-making changes with a change of any of the social factors when all others are held constant. However, the results of the study indicates that all the social factors had a significant change on career decision-making when increased by one unit. The unstandardized coefficient values of peer influence (*B* =.115; *t*=7.021; *p*=.006), teacher influence (*B*=.108; *t* =8.767; *p* =.005), career information services (*B*=.094, t=7.467; *p*=.002) and influence of older siblings (*B* = .084; *t* =7.152, *p*=.004) are all statistically

significant. This signifies that change in each of the social influences by one unit causes a significant increase on career decision-making among the 12th grade learners. In general, the model was statistically significant F (4, 199) = 132.756, p <.01, Adjusted R^2 =.722. This further confirms that the model is a predictor of career decision-making among the 12th grade learners.

Finally, decision was made on the null hypothesis that, social influences have no statistically significant effect on career decision-making among the 12th grade learners. The null hypothesis was that H_0: $\beta_1=\beta_2=\beta_3=\beta_4=0$ and the corresponding alternative hypothesis being H_1: at least one $\beta_i \neq 0$. Based on the fact that all $\beta_i \neq 0$, the null hypothesis was rejected. Hence, the alternative hypothesis, which states that social influences have a significant effect on career decision-making, was adopted. It was therefore concluded that social influences have a significant effect on career decision-making among the 12th grade learners in Secondary Schools.

5.7 Parental Level of Education and Career Decision-Making among Grade 12 learners

Hypothesis 7

There is no significant relationship between parental level of education and career decision-making of Grade 12 learners in Township Secondary Schools

The aim of this hypothesis was to establish the influence of parental level of education on career decision-making. The parental level of education was measured in categorical data; university level, college level, secondary level, primary level and no formal schooling.

The demographic analysis results indicates that the respondents whose parents had secondary education formed the majority 144 (70.6%) of the participants, 39 (19.1%) had parents with college level of education, 14 (6.9%) had parents with University education and the rest of them had parents with either primary 4 (1.9%) or no formal education 3 (1.4%). Given that parental education was the independent variable and career decision-making, being a continuous measure, was the dependent variable, one-way Analysis of Variance (ANOVA) was conducted to establish whether there was any significant difference in career decision-making among the parental education level. Table 44 shows group description for career decision-making scores for each parental level of education.

Table 44: *Career Decision-Making based on Parental Level of Education* **Group Descriptions (N=204)**

					95% Confidence Interval for Mean	
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound
University Level	14	2.8624	.20870	.05578	2.7419	2.9829
College Level	39	2.7651	.23790	.03809	2.6880	2.8422
Secondary Level	144	2.6725	.22025	.01835	2.6362	2.7088
Primary Level	4	2.2240	.17677	.08838	1.9427	2.5052
No Formal Schooling	3	2.5823	.18945	.10938	2.1116	3.0529
Total	204	2.6931	.23698	.01659	2.6604	2.7258

The results on Table 44 show that learners whose parents held a university level of education had the highest mean (*M*=2.86, *SD*=.21 and *SE* =.06) in the career decision-making index compared with the other groups of learners. Conversely, the learners whose parents had a primary level of education had the lowest career decision-making scores (*M*=2.22, *SD*=.18 and *SE* =.09), while the other groups of learners had intermediate scores.

This difference was subjected to inferential statistics to establish whether the differences were statistically significant. This was done by testing the null hypothesis using the ANOVA model in the form;$\bar{x}_1 \neq \bar{x}_2 \neq \bar{x}_3 = \bar{x}_4 \neq \bar{x}_5$.Table 45 shows the SPSS one-way Analysis of Variance (ANOVA) output.

Table 45: *ANOVA Output, Career Decision-Making by Parental Education*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.582	4	.395	8.014	.000
Within Groups	9.819	199	.049		
Total	11.401	203			

The ANOVA results in Table 45 revealed that there is a statistically significant difference [F (4, 199) = 8.014, p <.01]. Therefore, the null hypothesis that: "*there is no statistically significant difference in career decision-making given parental education of the 12th grade learners in Township Secondary Schools*", was rejected. Consequently, the alternative hypothesis was up held.

In this regard, it was concluded that there is a statistically significant influence of learners' parental education on career decision-making among Grade 12 learners in Township Secondary Schools.

Moreover, multiple comparisons using a post-Hoc test, Turkey HSD test, was used to establish which parental education group was significantly different from which other parental education group.

Tukey HSD Test

The statistical significance of the differences between each pair of parental education groups is provided in the table of multiple comparisons, which gives the results of the Post-Hoc tests (Table 46).

Table 46: *Tukey HSD Test by Parental Education Group* **(N=204)**

(I) Parental level of education	(J) Parental level of education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
University Level	College Level	.09735	.06921	.624	-.0932	.2879
	Secondary Level	.18990*	.06219	.021	.0187	.3611
	Primary Level	.63847*	.12594	.000	.2918	.9852
	No Formal Schooling	.28015	.14132	.278	-.1089	.6692
College Level	University Level	-.09735	.06921	.624	-.2879	.0932
	Secondary Level	.09255	.04010	.147	-.0178	.2029
	Primary Level	.54112*	.11662	.000	.2201	.8622
	No Formal Schooling	.18281	.13309	.645	-.1836	.5492
Secondary Level	University Level	-.18990*	.06219	.021	-.3611	-.0187
	College Level	-.09255	.04010	.147	-.2029	.0178
	Primary Level	.44857*	.11260	.001	.1386	.7585
	No Formal Schooling	.09025	.12958	.957	-.2665	.4470
Primary Level	University Level	-.63847*	.12594	.000	-.9852	-.2918
	College Level	-.54112*	.11662	.000	-.8622	-.2201
	Secondary Level	-.44857*	.11260	.001	-.7585	-.1386
	No Formal Schooling	-.35832	.16966	.219	-.8254	.1087
No Formal Schooling	University Level	-.28015	.14132	.278	-.6692	.1089
	College Level	-.18281	.13309	.645	-.5492	.1836
	Secondary Level	-.09025	.12958	.957	-.4470	.2665
	Primary Level	.35832	.16966	.219	-.1087	.8254

The findings of the study on table 46 shows that the career decision-making mean score for the learners whose parental education is university level was significantly higher than the learners whose parents had secondary education (*M. Diff.* =.19, *p*=.02) and primary education (*M. Diff.* =.64, *p*<.01). Equally, a significant difference in the level of career decision-making was established between learners whose parents had college education and primary education, and between learners, whose parents had secondary education and primary education. The level of career decision-making among the learners whose parents had primary education was significantly lower than the other four parental education groups. However, a significant difference in the level of career decision-making was not established between the learners whose parents had no formal education and learners whose parents had any other level of education. Similarly, the study established that there was no significant difference in career decision making between the learners whose parental education was university and those of college [*M. Diff.* =.09, *p*=.15 (ns)] and, between those whose parental education was secondary and college [*M. Diff.* =.09, p=.15 (ns)].

5.7.1 Evaluation of the effect size

Given that a significant difference was established, the importance of the findings was sought. Effect size was calculated to indicate the relative magnitude of the differences between the means. The eta squared measuring the effect size in ANOVA was calculated using the formula:

$$\text{Eta squared} = \frac{\text{Sum of squares between groups}}{\text{Total sum of squares}},$$ was 0.138.

This calculated Eta squared (.138) shows that a fairly large proportion (13.8%) of variance in the level of career decision-making was explained by parental education of the respondents. This indicates that 13.8% of the variance in the level of career decision-making among the 12th grade learners in Secondary Schools was attributed to the learners' parental education level, with learners whose parents had higher education likely to be more effective in making career choice than their counterparts whose parents had a lower standard of education.

5.8 Learners' Demographic Factors and Career Decision-Making

This sought to establish the relationships between demographic factors (gender and age) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa.

5.8.1 Gender and Career Decision-Making

Hypothesis 8

There is no significant relationship between gender and career decision-making of Grade 12 learners in Township Secondary Schools

The aim of this hypothesis was to ascertain the relationship between gender and career decision-making among Grade 12 learners in Township Secondary Schools. In the study, 60 (29.4%) males and 144 (70.6%) females participated in rating their career decision-making. Career decision-making was rated in the scale of 1 to 5. To address this objective of the study, the hypothesis "*there is no gender difference in career decision-making among Grade 12 learners in Township Secondary Schools*" was tested. An independent-samples t-test analysis was conducted to compare the levels of career decision-making among male and female Grade 12 learners.

Table 47: *Group Statistics on Gender difference in Career Decision-making* **(N=204)**

Sex	N	Mean	Std. Deviation	Std. Error Mean
Male	60	2.7798	.22932	.02960
Female	144	2.6570	.23143	.01929

The results of descriptive statistics of career decision making by gender presented in Table 47, indicates that the male learners had a slightly higher score of 2.78 in the scale 1 to 5, with a standard deviation of .23 and standard error of .03 in career decision-making, compared to their female counterparts who had a mean score of 2.66, with a standard deviation of .23 and standard error of .02 in the level of career decision-making. To confirm the differences indicated in the descriptive analysis an Independent-Sample t-test analysis was conducted. The t-test model in the form $\bar{x}_1 \neq$

$\bar{x}_2$ was necessary given that; $\bar{x}_1$=2.78 and $\bar{x}_2$=2.66. The Independent Sample t-test results were represented as in Table 48.

Table 48: *Independent Samples t-test on Career Decision-Making among Gender*

		Levene's Test for Equality of Var.		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Conf. Interval of the Diff. Lower	Upper
Career Decision-Making	Equal variances assumed	.043	.836	3.464	202	.001	.12285	.03547	.05292	.19278
	Equal variances not assumed			3.477	111.424	.001	.12285	.03533	.05284	.19286

The results presented in Table 48 indicate that given that the Levene's Test for Equality of Variances was not significant (p =.836 >.05) the assumption of equality of variances was upheld. Hence, it was evident that there was a statistically significant difference [t (202) =3.464, p=.001] noted in Career Decision-Making between gender, with male learners being more effective in career decision-making than their female counterparts.

5.8.1.1 Evaluation of the effect size

To assess the importance of the findings it was necessary to calculate the 'effect size' or 'strength of association'. This indicated the relative magnitude of the differences between the means in Career Decision-Making among the 12th grade learners. In other words, the effect size described the 'amount of the total variance in the dependent variable (level of Career Decision-Making) that is predictable from knowledge of the levels of the independent variables (gender). The effect size, calculated using eta squared, is given by:

$$\text{Eta squared} = \frac{t^2}{t^2+(N1+N2-2)} \quad \text{was .056}$$

Hence, from the Eta squared = .056, it is concluded that the proportion of variance of the level of Career Decision-Making that was explained by the gender was quite plausible. About six percent (5.6%) of the variance noted in the level of Career Decision-Making among the 12th grade learners was affected by the gender of the learner, with the male learner favoured to make more effective career decisions than their female counterparts.

5.8.2 Age and Career Decision-Making

Hypothesis 9

There is no significant relationship between age and career decision-making of Grade 12 learners in Township Secondary Schools

The influence of learners' age on career decision-making was explored by testing the hypothesis that "*there is no statistically significant influence of learners' age on career decision-making among Grade 12 learners in Township Secondary Schools*". The age of the respondents was measured in categorical data. From the demographic analysis, the results indicate that the respondents aged 17-18 years formed the majority 159 (77.9%) of the participants, 19 years and above were 38 (18.6%) and those below 16 years of age formed the minority 7(3.4%) of the participants. A one-way analysis of variance (ANOVA) was conducted to establish the influence of respondents' age on career decision-making, as measured by career decision-making index questionnaire. Respondents' age was categorized into three groups and was the independent variable, while the scores on the career decision-making index was the dependent variable.

Table 49: *Age Group Descriptions: Career Decision-Making Level* **(N=204)**

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Lower Bound	Upper Bound
16 Years and Below	7	2.4521	.30092	.11374	2.1738	2.7304
17-18 Years	159	2.6906	.23232	.01842	2.6542	2.7270
19 Years and Above	38	2.7481	.22099	.03585	2.6755	2.8208
Total	204	2.6931	.23698	.01659	2.6604	2.7258

The results in table 49, shows group description for career decision-making scores got by each age group, revealed that 19 years and above had higher mean (n=38, mean=2.75, standard deviation =.22 and standard error =.04) in career decision-making index than the other age groups. The learners aged 16 years and below had the lowest career decision-making scores (n=7, mean=2.45, standard deviation =.30 and standard error =.11). The null hypothesis H_o, "*there is no statistically significant influence of learners' age on career decision-making among Grade 12 learners in Township Secondary Schools*" was tested. In this regard, the ANOVA model in the form$\bar{x}_1 \neq \bar{x}_2 \neq$

$\bar{x}_3$ was necessary to illustrate the samples tested, where $\bar{x}_1$=2.45, $\bar{x}_2$=2.69.4 and $\bar{x}_3$=2.75. Table 50 shows the SPSS one-way Analysis of Variance (ANOVA) output.

Table 50: *ANOVA Output, Career Decision-Making Level by Age Group*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.523	2	.261	4.830	.009
Within Groups	10.878	201	.054		
Total	11.401	203			

The ANOVA results in table 50revealed that there is a statistically significant difference [F (2, 201) =4.83, p=.009]. Hence, the null hypothesis that: "there is no statistically significant influence of learners' age on career decision-making among Grade 12 learners in Township Secondary Schools", was rejected. This meant accepting the alternative hypothesis that: there is a statistically significant influence of learners' age on career decision-making among Grade 12 learners in Township Secondary Schools. Given the fact that significant difference was established, additionally, it was necessary to discover which age group was significantly different from which other age group. This was done by computing a post-Hoc test, Turkey HSD test.

Tukey HSD Test

The statistical significance of the differences between each pair of age groups was provided in the table of multiple comparisons, which gives the results of the Post-Hoc tests (Table 51).

Table 51: *Tukey HSD Test by Age Group* **(N=204)**

					95% Confidence Interval	
(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
16 Years and Below	17-18 Years	-.23853*	.08984	.023	-.4507	-.0264
	19 Years and Above	-.29607*	.09568	.006	-.5220	-.0701
17-18 Years	16 Years and Below	.23853*	.08984	.023	.0264	.4507
	19 Years and Above	-.05754	.04201	.359	-.1567	.0417
19 Years and Above	16 Years and Below	.29607*	.09568	.006	.0701	.5220
	17-18 Years	.05754	.04201	.359	-.0417	.1567

The finding of the study in Table 51 indicated, that the career decision-making mean score for the learners aged 16 years and below was significantly different from the other two groups, 17-18 Years (Mean difference=-.24, *p*=.023) and 19 Years and Above (Mean difference=-.30, *p*=.006). The level of career decision-making among the learners aged 19 years and above was significantly higher than the other two age groups. However, the learners in the age groups 17-18 years and 19 years and above did not post any statistically significant difference in career decision-making index with any age group.

5.8.2.1 Evaluation of the effect size

The importance of the finding was established by calculating the 'effect size' (also known as 'strength of association'). Effect size indicates the relative magnitude of the differences between the means. In other words, it helped to describe the 'amount of the total variance in the dependent variable (level of career decision-making) that was predictable from the knowledge of the levels of the independent variables (age of the learner). The eta squared measuring the effect size in

ANOVA results was calculated using the formula:

$$\text{Eta squared} = \frac{\text{Sum of squares between groups}}{\text{Total sum of squares}},$$ was 0.045.

This calculated Eta squared (.045) implied that a fairly small proportion (4.5%) of variance in the level of career decision-making was explained by age of the respondents.

5.9 Structural Equation modelling on the Relationship between Psycho-social Factors and Career Decision-Making.

The study used structural equation modelling to analyse structural relationships between psychological and social factors, as independent variables, and learners' career decision-making, as a dependent variable. In this study, psychological factors were characterized by BFI, self-efficacy, locus of control, psychological identity, career interest and self-esteem. Similarly, peer influence, teacher influence, career information service and influence of older siblings was taken as sub-dimensions of social factors. Essentially, this study is positioned on the hypotheses that sub-dimensions of psychological factors (BFI, self-efficacy, locus of control, psychological identity and self-esteem) has an influence on career interest, which in turn affects the career

decision-making process. Likewise, social factors (peer influence, teacher influence and influence of older siblings) were envisaged to influence career information service, which influence career decision making. All the variables used here were constructed from questionnaires that elicited learners' opinion on constructs under each variable. Except for the variable of career interest, all the variables were measured on a Likert-type scale.

5.9.1 Descriptive Statistics for Variable included in the Model

Descriptive statistics of (mean, standard deviation, minimum and maximum) the variables used in the study are given in Table 52.

Table 52: *Descriptive Statistics of Variable used in the Path Analysis* **(N=204)**

Variable	Obs.	Mean	Std.Dev.	Min	Max.
BFI	204	3.27	0.23	2.68	3.97
Self-efficacy	204	3.55	0.34	2.20	4.40
Locus of Control	204	2.49	0.50	1.00	5.00
Career Interest	204	1.52	0.27	1.09	3.00
Self-esteem	204	3.40	0.44	1.80	4.30
Psychological Identity	204	3.92	0.58	1.60	5.00
Peer Influence	204	3.42	0.57	1.20	4.60
Teacher Influence	204	3.56	0.80	1.00	5.00
Career Interest	204	2.01	0.28	1.00	2.75
Sibling Influence	204	3.26	0.82	1.00	5.00
Career Decision-Making	204	2.69	0.24	1.96	3.41

The descriptive statistics show that (mean, standard deviation, minimum and maximum) the variables used in the study were varied. Psychological identity had the highest mean of 3.92 with standard deviation of 0.58, while career interest attracted the least mean of 1.52 with a standard deviation of 0.27.

5.9.2 Correlation of Variables included in the Model

To develop a structural equation modelling that is able to explain the relationship between psychological and social factors and career decision-making, Pearson product moment correlation analysis was used to investigate the correlation between the variables used in the structural model equations and the results is shown in Table 53:

Table 53: *Correlation between variables used in SME*

Variable	1	2	3	4	5	6	7	8	9	10	11
Career Decision Making (1)	1										
BFI (2)	0.51*	1									
Self- efficacy (3)	0.40*	0.22*	1								
Locus of Control (4)	0.35*	0.04	0.25*	1							
Self-esteem (5)	0.27*	0.06	0.01	0.25*	1						
Psychological Identity (6)	0.62*	0.15*	0.35*	0.33*	0.25*	1					
Career Interest (7)	0.30*	0.11	0.25*	0.26*	0.12	0.05	1				
Peer Influence (8)	0.51*	0.08	0.07	0.23*	0.14*	0.35*	0.14*	1			
Teacher Influence (9)	0.64*	0.15*	0.11	0.23*	0.16*	0.34*	0.24*	0.29*	1		
Career Information (10)	0.61*	0.12	0.19*	0.32*	0.15*	0.21*	0.17*	0.26*	0.35*	1	
Older Sibling Influence (11)	0.57*	-0.01	0.22*	0.23*	0.14*	0.29*	0.14*	0.18*	0.33*	0.35*	1

***Correlation is significant at the .01 level, two-tailed.**

When correlations in Table 53 are analysed, it is seen that there is statistically a significant relationship between career decision making and all the dimensions of social and psychological factors ($P< .01$). Teacher influence had the strongest correlation with career decision making (n=204, r=.64), while self-esteem had the least correlation with career decision-making (n=204; r=.27). Among other variables, it clearly emerged that all the variables had a direct relationship with each other, except between BFI and older siblings, which had a reciprocal relationship though not statistically significant. Moreover, it is seen that there is a positively significant relation between the majority of variables ($P< .01$). This suggests that the variables are appropriate for use in structural model equation for career decision making.

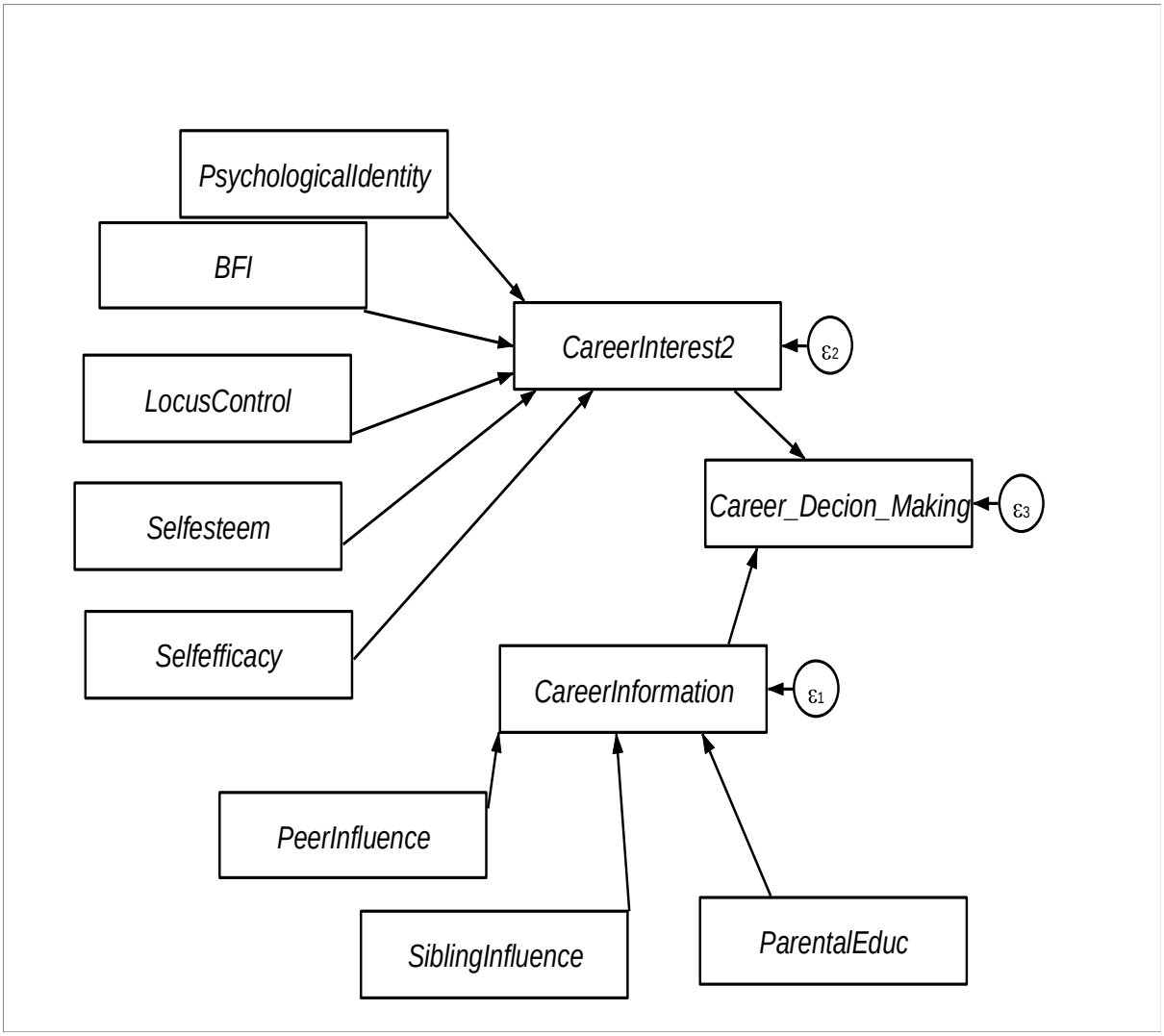
5.9.3 Assessment of Model Fit

A preliminary analysis was conducted to test the validity of the measurement portion of the model using goodness of fit statistics. Practical indices of fit included the Chi-square, Root Mean Square Error of Approximation (RMSEA), normed and non-normed fit indices (NFI, NNFI) and the non-normed comparative fit indices (CFI). Values for NFI, NNFI and CFI ranged from 0 to 1 which was derived from the comparison of a hypothesised model with the independent model having a value greater than 0.90 indicating an acceptable fit to the data. In addition, the results revealed a good model fit because RMSEA was established to be less than 0.05. Further, Chi-square/df rate was found to be within an acceptable range. Using the Likelihood ratio to compare model vs.

saturated and baseline vs. saturated and having established significant statistics, it was held that the model is suitable and fit for demonstrating the structural relationship between social, psychological factors and career decision making among the 12th grade learners.

The figure below shows the structural equation diagram.

Figure 8: Structural Equation Diagram



Structural Equation Model: Influence of Psychological and Social Factors on Career Decision Making among 12th grade learners

It was hypothesised that sub-dimensions of psychological factors (BFI, self-efficacy, locus of control, psychological identity and self-esteem) has influence on career interest, which in turn affect the career decision-making process. Similarly, social factors (peer influence, teacher

influence and influence of older siblings) were envisaged to influence career information service, which influence career decision making.

Table 54: *The decomposition of effects*

	Coef.	Std.Err.	Z	p>(Z)
Career Interest				
BFI	0.057	0.080	0.710	0.476
Locus Control	0.086	0.039	2.170	0.030
Self-esteem	0.022	0.044	0.500	0.620
Self-efficacy	0.109	0.059	1.840	0.047
Psychological Identity	0.093	0.036	2.600	0.010
Constant	0.876	0.329	2.660	0.010
Career Information				
Peer	0.296	0.090	3.290	0.001
Older Siblings	0.300	0.063	4.780	0.000
Parental Education	0.053	0.075	0.700	0.483
Constant	1.042	0.445	2.340	0.019
Career Decision Making				
Career Interest	0.171	0.046	3.670	0.000
Career Information	0.174	0.016	10.470	0.000
Constant	1.793	0.100	17.890	0.000

On career interest, the model summary reveals that only BFI and self-esteem variables did not have statistically significant influence on career interest (p >.05). Both BFI (B= 0.057) and self-esteem (B=0.022) had the least effect on career interest, which were not statistically significant. On the other hand, self-efficacy made the highest positive influence on career interest (B=0.109; p=0.047). This suggests that when the learners' level of self-efficacy is improved one unit there would be an ensuing rise in career interest by 0.109 units.

In addition, locus of control and psychological identity, both had a positive significant effect on career interest. Improving the level of learners' locus control by one-unit results in improvement of their career interest by 0.086 units, when other variables are held constant. With regard to psychological identity, the study findings indicate that when one unit improves psychological

identity, there would be a subsequent rise in learners' level of career interest by 0.093 units, which is statistically significant.

Similarly, for the career information, it is evident that save for parental education, all other variables had statistically significant effect on career information which again impacts indirectly on career decision making among the Grade 12 learners. Influence of older siblings was established to have the highest (B=0.300; p<.001) effect on career information, implying that when older siblings influence is increased by one unit, there would be a subsequent improvement in career information by .300 units. Similarly, increasing peer influence by one unit there is an ensuing rise in career information by 1.296 units.

The direct effect of career interest and career information on career decision-making was statistically significant. There is a 95% confidence that when career interest is generally improved by one unit the level of career decision making process would improve by 0.171 units within a standard error of 0.046, which is a statistically significant change (B=0.171; p < .001). Similarly, an improvement of career information among the 12^{th} grade learners by one unit is expected to result into rise of career decision-making process by 0.174 (SE=0.016) units. This unit change in career decision-making process as a result of rise in career information was established to be statistically significant (B=0.174; p=0.016).

5.10 Challenges Faced by Learners in their Career Decision-Making Process.

The last objective of the study investigated the challenges faced by learners in their career decision-making process. This was investigated by using a Likert scaled questionnaire where items gauged the learners' opinion on the possible challenges, they faced in career decision-making process. The responses are indicated in a 5-point Likert scale; Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Disagree (5). Their views were summarized in frequency percentages, means and standard deviation.

Table 55: *Response on Challenges Faced by Learners in their Career Decision-Making process*

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M	SD
1. I lack knowledge on which career is best for me	32 (15.7%)	54 (26.5%)	45 (22.1%)	46 (22.5%)	27 (13.2%)	2.9	1.3
2. I am not sure about my career preferences yet	33 (16.2%)	43 (21.1%)	44 (21.6%)	56 (27.5%)	28 (13.7%)	3.0	1.3
3. I don't have information on the best careers now	33 (16.2%)	61 (29.9%)	55 (27.0%)	29 (14.2%)	26 (12.7%)	2.8	1.2
4. I lack information about the world of work	21 (10.3%)	45 (22.1%)	56 (27.5%)	59 (28.9%)	23 (11.3%)	3.1	1.2
5. I lack information about self	55 (27.0%)	70 (34.3%)	44 (21.6%)	17 (8.3%)	18 (8.8%)	2.4	1.2
6. I don't know how to combine the information I have about myself with the information I have about the different careers	27 (13.2%)	43 (21.1%)	59 (28.9%)	45 (22.1%)	30 (14.7%)	3.0	1.2
7. I don't have the motivation to make the decision now	31 (15.2%)	57 (27.9%)	52 (25.5%)	39 (19.1%)	25 (12.3%)	2.9	1.2
8. I do not know what steps I have to take to make the right career decision	32 (15.7%)	49 (24.0%)	44 (21.6%)	47 (23.0%)	32 (15.7%)	3.0	1.3
9. I usually feel that I need confirmation and support for my decisions	14 (6.9%)	26 (12.7%)	49 (24.0%)	72 (35.3%)	43 (21.1%)	3.5	1.2
10. I do not have enough information about my competencies and/or about my personality traits	27 (13.2%)	46 (22.5%)	58 (28.4%)	45 (22.1%)	28 (13.7%)	3.0	1.2
11. I do not have enough information about the characteristics of the occupations and/or training program that interest me	28 (13.7%)	39 (19.1%)	58 (28.4%)	56 (27.5%)	23 (11.3%)	3.0	1.2
Mean average rating on challenges faced in career decision making process						2.96	0.90

Source: Survey data (2021).

The overall rating on the challenges faced by learners in their career decision-making process was rated as 2.96 (*SD*=0.90) in the scale of 1 to 5, suggesting that the 12th graded learners generally face above average challenges on making decisions on career choice. The results of the study shows that challenges faced by learners in career decision-making generally included lack of knowledge and information of the career opportunities that match their abilities/interests. However, there was a mixed opinion on the magnitude of challenges in making decision on career choice among the respondents. For instance, the response in item one, which was to establish whether the learners have adequate knowledge on which career is best for them, shows that 27 (13.2%) of the respondents strongly agreed that they lacked appropriate knowledge to know what career is best for them, 46 (22.5%) agreed, 45 (22.1%) were neutral, while 54 (26.5%) disagreed and 32 (15.7%) strongly disagreed to the statement. In this case, the composite mean of 2.96 is lower than the individual item mean (*M*=2.9, *SD*=1.3), implying that there is a significant lack of knowledge among the learners to decide which career is best for them. Equally, whereas 33 (16.2%) and 43 (21.1%) strongly disagreed and disagreed, respectively, that they are not sure about their career preferences yet, 84 (41.1%) others either agreed or strongly agreed that they are not sure about their career preferences yet, which translates to a challenge rating of 3.0 (*SD*=1.3). Similarly, 55 (26.9%) of the respondents accepted that they do not have information on the best careers now, reflecting to a challenge rating of 2.8 (*SD*=1.2).

Another challenge faced by 12th grade learners in choosing careers was a lack of information in the world of work. This was confirmed by a response rate of 3.1 (*SD*=1.2) with 82 (40.2%) of the respondents who either agreed or strongly agreed that they were deficient regarding information about the world of work. In addition, it emerged that although 55 (27.0%) of the respondents strongly disagreed that they lack information about themselves and70 (34.3%) disagreed, some 35 (17.1%) accepted that they truly lack information about themselves. This challenge attracted a mean rating of 2.4 (SD=1.2) which is less than the composite value of 2.96, suggesting that the respondents who do not understand themselves are fewer compared to those who understand who they are, suggesting that this is not a major challenge to career decision making.

However, what emerged clearly as a challenge among the 12th grade learners was not being able to scrutinize what they knew about themselves and what they knew about different careers. This

was confirmed by a mean rating of 3.0 with a standard deviation of 1.2 and 75 (36.8%) of the learners who participated in the survey. These respondents accepted that they did not know how to combine the information about themselves with the information that they have about different careers. This is a fairly serious challenge among the learners concerning career decision making.

Moreover, a lack of motivation was established to be a challenge to career decision making among the grade 12 learners. For instance, when the respondents were asked whether they were motivated to make career decision, 31 (15.2%) of them strongly agreed that they did not have the motivation to make a career decision at that time, 57 (27.9%) of the respondents agreed, but 52 (25.5%) of the respondents remained neutral. Only 39 (19.1%) of the respondents and 25 (12.3%) of the respondents strongly disagreed and agreed, respectively, that they were not motivated to make the decision immediately. This was further corroborated by a mean response of 2.9, which showed that lack of motivation was a real challenge in career decision-making among the 12th grade learners.

Likewise, the findings of the study revealed that a sizeable proportion 79 (38.7%) of the respondents accepted that they did not know what steps they had taken to make the right career decision, translating to a mean challenge rating of 3.0 (SD=1.3). In fact, more than one out of every two 115 (56.4%) of the respondents confirmed that they usually feel that they need confirmation and support for their career related decisions, translating to a fairly high mean response rate of 3.5 with a standard deviation of 1.2.

The results of the survey indicated that there was a sharp division among respondents in opinion on whether they understood their competencies with regard their career choices. This was mirrored by 71 (35.7%) of the respondents who denied that they did not have enough information about their competencies and/or about their personality traits, compared to another 73 (35.8%) others who accepted that they were devoid of sufficient information about their competencies and/or about their personality traits. Similarly, 56 (27.5%) of the respondents agreed and 23 (11.3%) of the respondents strongly agreed that they do not have sufficient information about the characteristics of the occupations and/or training programmes that interests them, translating to a mean response of 3.0 (SD=1.2).

5.11 Conclusion of the chapter

This chapter presented the results of the quantitative analyses of this study. The inferential statistical analyses were carried out to test the research hypotheses, particularly those that are related to psychosocial factors and career decision making of Grade 12 learners. The results of the analyses show that sub-dimensions of selected psychological factors have influence on career interests, which directly have an effect on career decision-making process. In the same way, selected social factors were envisaged to influence career information services, which in turn influence career decision making. In addition, this study developed a structural equation modelling to analyse the structural relationships between psychological and social factors, which is the independent variables, and learner's career decision making as a dependent variable. The next chapter presents the results of the qualitative component of this study.

CHAPTER SIX

QUALITATIVE RESULTS

6.1 Introduction

This chapter presents the findings from the qualitative data collected using the online semi structured interviews conducted on 23 grade 12 learners from six selected Township schools and analysed through thematic content analysis process. The themes, sub-themes and interpretations of the qualitative findings on psychological and social factors affecting learners' career decision-making in township Secondary Schools are presented. This study attempted to answer the main research question, which was:

" What is the relationship between psycho-social factors and career decision-making of Grade 12 learners in township Secondary Schools in Gauteng East District, South Africa? "

6.2 Results

The semi-structured in-depth interviews were transcribed and analysed through thematic analysis process. The thematic structure was adapted to categorise and organise data based on the major themes and emergent categories (Haradhan, 2018). By reviewing the interview transcripts numerous times, the proximity to the data for this study was determined. The data from transcripts were arranged to derive meaningful themes from participants' experiences on career decision-making. The themes that were discovered from the transcribed data were according to participant's experiences and interpretation attached to factors which influenced their choices of career. Data analysis encompassed creating connections between themes for proper interpretation and incorporation into the study findings (Haradhan, 2018). The findings are "grounded" by using direct quotations from participants to substantiate participants' experiences on the factors which influenced their career decision-making process. The findings are presented with the aim of answering the research questions and research objectives.

The qualitative results are presented in four sections. The first section (6.3) explores the psychological factors that influence learners' career decision-making. The next section (6.4) identifies social factors that influence learners' career decision-making, as related to family, school and community. Section 6.5 reports on the demographic factors and career decision-

making among learners, and the final section (6.6) presents the challenges faced by learners in their career decision-making process.

6.3 Psychological factors and career decision-making of Grade 12 learners

This study explored psychological factors that influence Grade 12 learners in township Secondary Schools to choose their career path. According to Bandura's (1977) Social Cognitive Theory which focuses on how children and adults process personal events cognitively and how this processing affects their behaviour and development. Individuals must first build a suitable environment and then maintain control over it, as each individual is only a partial product of their surroundings. The psychological factors are those that are about the psychology of the individual learners that drive their actions to career decision-making. Based on the qualitative data analysis, the two themes which emerged on psychological factors influencing career decision making among grade 12 learners are learners' career identification, and learners' capability in career decision-making.

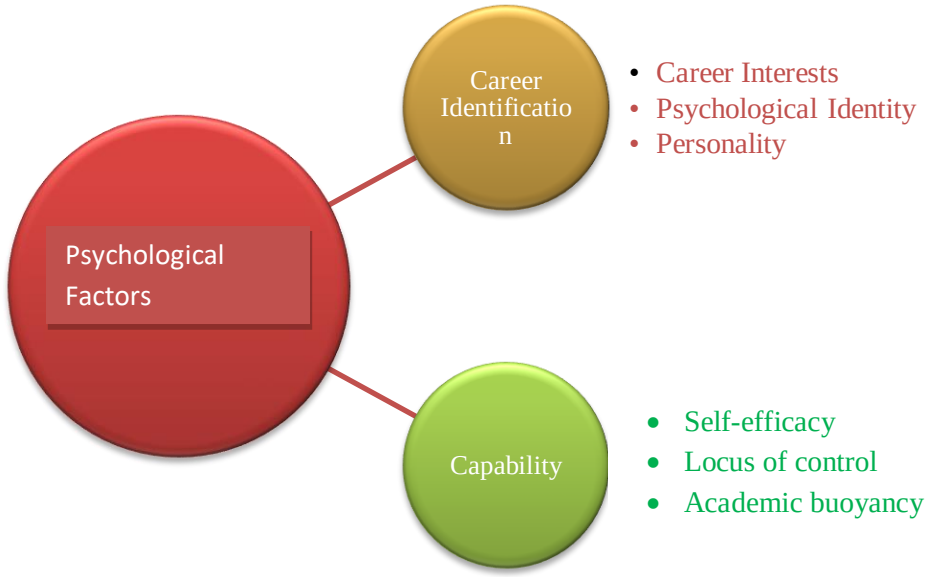


Figure 9: *Themes and sub-themes on psychological factors influencing career decision making of learners*
Source: Primary data (2022).

6.3.1 Theme 1: Learners' career identification

Career identification is described as individuals' preferences regarding work activities and environments. It is a process that entails identifying one's career interests and seeking careers that are compatible with one's personality and values. Indecision is abundant when faced with decisions regarding a prospective career. The results from the qualitative component of this study revealed that learners were able to identify their choice of career based on a range of factors that influenced individual participants. Participants' interviews revealed various factors that influenced career decisions among grade 12 learners. The three sub-themes that evolved from the career identification theme are as follows: learners' career interests, psychological identity, and learners' personality, which are discussed below.

6.3.1.1 Learners' Career interests

Career interests are individual's preferences concerning career and future activities. Identifying one's career interests allows an individual to make a more planned and well-informed career selection. Pursuing one's career interests entails finding a job that makes use of one's skills and is in line with individual's beliefs and preferences. Furthermore, people are likely to recognise the need to decide what they are interested in, understand what distinguishes various types of options from one another, and develop skills that can help. Consequently, career interest requires in-depth knowledge pertaining to careers in which the youth are interested (Hardgrove, 2020). According to the findings of this study, all 23 participants that were interviewed indicated that their career interests influenced their decision making. One participant reported that: "*I will like to study for criminology anthropology and also Psychology. I want to go to the university to further my study*" (Participant, 1). Another participant also reported that the interest in medical field influenced the choice in future career in medicine. The participant reported the following: "*I want to study medicine and not just any medicine, internal medicine. It has to do with diagnosing*" (Participant, 2).

From the results by participants 1 and 2, it makes it so much easier when learners have an idea regarding their career choice, and that, when learners have decided on a career, there is always a certain degree of passion involved. It is remarkable when learners have decided upon a career before applying to university.

As mentioned earlier, passion is a very important aspect when choosing a career. Participant 3 confirms that due to the passion for criminology, a decision was made on this career without any problems, as reflected in the following excerpt:

> I want to study criminology or do Pathology, which is forensic science. Those are my two main studies; I have not been able to make a specific decision from all of these. Though I love science, I love my life science that is why forensic Pathology is my first option and criminology is my second option. I feel confident about my decision but I don't know if it's the right one, though I am passionate about it (Participant, 3**).**

Participant 4 has realised that the world has changed and with technology taking precedence, as a result the participant wants to become technologically adept and has decided to study computer science and mentioned that: *"I want to go to the university and study computer science and find a job after study [ing], because we are changing into a new world of technology"*. When learners show an interest in a specific career, it is important that they have the required support to pursue their choice of career. It is excellent when learners have made up their minds about a career as Participant 5 is confident in studying computer science: "*I will go to the University to study computer science and it's not because I love computer science but doing something you hate now to do something you love later. I don't like working for people"*. It is commendable that participant 9 desires to pursue career in religion, and is interested in being a Pastor and it appears as his mind was made up from a young age: *"I really want to become a pastor**;** since I was young, I've always wanted to be a pastor to follow in my father's footstep*".

Some participants stated that their career decisions were influenced by their own interests in diverse fields that had a greater demand in comparison with others. For example, a participant had developed interest in taking up a career in Mathematics. Additionally, participant 13 also desired a career of being a secondary school Mathematics teacher: *"I want to continue my study and I want to obtain a Bachelor degree of Education in Further Education and Training (FET) teaching, particularly dealing with Mathematics*". In another school, participant 15 had developed a passion for film making which was perceived to be in high demand currently, and this was due to her interest in the field as reported. *"I am going to Africa Film Drama Art (AFDA), it's about film making. It's one of the best schools in film making in South Africa. I want to specialise in scriptwriting, directing and producing movies. I want to tell the story about my community*". Participant 15 has a keen interest in script writing which is not a common

career; however, this participant decided that it would be the career. Interview excerpts from participants 13 and 15, it may be concluded that, career interests had influenced the choice of careers.

From the results above, what may be inferred is that the grade 12 learners had decided on a career based on their interest and passion for their intended careers. Therefore, it can be concluded that, varying career interests among grade 12 learners influenced different choices on their career decisions. Thus, career interest is one of the significant psychological factors influencing career decisions among grade 12 learners. The next theme discussed is the learners' psychological identity.

6.3.1.2 Psychological identity

Psychological identity is associated with self-image or a person's psychological manifestation of oneself, self-esteem, and individuality (Licona, 2021). In cognitive psychology, however, the word identity signifies the ability to self-reflect and the consciousness of self. Sociology situates some clarifying emphasis on the notion of role-behaviour (Rodrigues, Stobäus & Mosquera, 2016). The concept of psychological identity was discussed in-depth in Chapter Two.

Seven of the twenty-three participants (P1, P2, P3, P5, P7, P16, and P17) reflected on their identities and self-images and how this influenced career decision making. The findings of this study indicated that majority of the participants did self-reflection, which assisted them in identifying things that are more important to consider in choosing careers. Participant 1 was reflecting on things that matter in career decisions, but not on the self-image or psychological manifestation.

> I want to be a forensic pathologist but then I realized that they only focus on the flesh and they don't go deeper but I want to go deeper actually to look at the entire body, from the skin down to the bones. Like what I realized from one movie that I watched, when babies are born, they look more like the father than the mother, even with the facial structures, the bones and the represents more of the father than the mother but when they grow up that is when they take the parent with dominant genes. So, because of the challenges that I perceived with becoming a Surgeon, I was able to dig deep into other profession and I fell for it more than the previous options (Participant1).

From the qualitative results, participants demonstrated their ability to self- reflect on self-image as they were able to identify their weaknesses and strengths before deciding on a career. Fortunately, participant 22 was able to reflect and identify the negative aspects on which the

chosen career would have to work as mentioned in this reflection: "*So, it has been because I have this hope and the zeal towards the future and I am positive; I am emotionally weak and take things to heart; I am too trusting and very forgiving"* (Participant 22). Unfortunately, Participant 3 does not specify what gave her confidence. Additionally, there is little self-reflection but it could be inferred that as a result of consciousness the participant was able to come to some semblance of self-reorganisation: *"It gave me confidence about what I will like to do after matric because it has been a huge thing for me. It has helped me to be able to find myself"*

Participants share their thoughts on the realisation that it is necessary to succeed in their chosen career paths. When self-doubt sets in, that is when they resolved to change their attitude, which is a reflection of their academic performances. To achieve improved results, require hard work and consistent dedication to study. A participant reflection is presented in the interview excerpt below:

> I think it was in Grade 11 when my results were not really good and I ended up doubting myself, thinking this medicine might not be for me after all, that really weighed me down. I dealt with it and my last results were very good. Actually, I made a timetable for myself to study and I follow it strictly
> I have come to a point in my life where I have made the decision that I really need to go to school because my passion is pushing me. I now practice my Mathematics every day and study other subjects as well (Participant 16).

A few participants reflected upon the negativities in their lives and as a result of this reflection; they resolved to rid themselves of the fear and negativity, to be able to focus on achieving their set goals. Participant 12 mentioned that: *"I have been working extra hard to get through my fear, being focused to avoid distraction that could have negative impact on my marks".*

From the above interview extracts, it can be established that these participants, had an idea of self-image, or their own inner appearance of self, self-esteem, and individuality which are all linked to psychological identity. The ability to self-reflect and self-awareness is obvious in what these participants had stated. It is quite promising to note that from these participants statements, that they have a sense of awareness regarding their personalities, self-image, which enabled them to make firm decisions regarding their futures. Learners' personality is discussed in the next sub-section.

6.3.1.3 Learners Personality

Making the right career option appropriate for one's personality is a significant aspect to consider while determining a future career (Yusof, 2013). Individuals' personalities are a dynamic and organised trait that can affect cognitive processes, encouragement, and performance in diverse contexts (Jemini-Gashi & Bërxulli, 2017). According to Brown and Lent (2005), job selection based on individual capacities and personalities can create capable employees who contribute to the economic progress of the nation.

The qualitative results obtained from interviews have shown that most of the participants indicated that their personalities would enable them to succeed at their chosen careers. These participants described themselves as they perceived their personalities to be. Some of the participants liked helping people, while others preferred to work alone. Participants described their personality as being emotional, whereas some participants saw themselves as leaders and strong individuals who would manage the four years at University. These participants indicated their belief and confidence in their individual personality trait as a feature in their career decision-making process, which could help them achieve their career objectives. The following excerpts from six participants serve to demonstrate this:

> I am a very considerate person who likes to take care of people.I am a person who prefers working alone instead of working with people; I know I can try over and over again until I get it correct (Participant 1).
>
> I think I'm a very emotional person. I do think that I am confident about myself. My studies and my ability show that I can actually survive the four years in the university. I am confident (Participant 2).
>
> Personally, I'm one of the leaders in the group and one of those who are able to express themselves; maybe I might have influenced their decision during the course of interacting with me (Participant 3).
>
> I always like to get solution to a problem. I like doing that and I am interested in doing that so.I am very decisive. My external support is my older sister and she advises me to go to a university at Eastern Cape (Participant 4).
>
> Mentally I can focus because I am confident that I will be able deal with a lot of things. When I am focused, I can sit and study on my own effectively and efficiently (Participant 5).
>
> So, I love helping people and I've always wonder how we come about diseases and how can we solve them because it's affecting our people in a very like painful way (Participant 6).

From the aforementioned excerpts, it can be concluded that, personality of learners is varied and this influenced them into choosing different careers. Therefore, having a cheerful

disposition is beneficial and being able to communicate is good specifically if the chosen career involves communicating and interacting. Participant 8 indicated that being extroverted could serve as a good opportunity to make an individual to pursue certain careers: *I'm a jolly person. My personality affects my career decision in a good way because I'm able to talk to people in every situation. I can relate with people to the extent of getting information from them.* Another learner personality trait elicited from the qualitative results is being a calm person who is not easily angered. Such a personality will contribute towards amicable relationships and will assist in the world of work. This is indicated in the statement below:

> I am a calm person no matter the situation but sometimes maybe with the siblings I might just get angry but like around me, the moment doesn't affect me, like certain situation doesn't affect how I feel. Sad, happy I just stay calm (Participant 9**)**

Some participants described themselves as individuals who had good backgrounds, with a kind heart and endeavoured to do well. Furthermore, they described themselves as considerate individuals who always took into account the consequences of their actions. This is remarkable and with such personality trait participants should be very successful in their chosen career, as evident in the following excerpt:

> I am a boy from a good home, kind hearted and always willing to do well. In each and everything that I do I am always considerate of other people and what might be the consequences of my actions (Participant 10).

From the findings, what was inferred were the admirable qualities that participants shared about themselves. Personality traits and the qualities that they possessed implied success in their chosen careers. Therefore, personality is key in a successful chosen career hence affable personality can only pay dividends. However, having the ability not to accept failure could perhaps be putting oneself under undue stress, as life is such that inevitably one encounters failure. If failure is confronted and an individual learns from that experience, it will predictably lead to success. The following extract bears witness to this testament:

> I am a person that has no problem with being alone, I am confident and I believe in myself. I am very decisive because there are lots of delays when you do things with other people. I like planning most of the time and I write down everything that I want to do daily without any distraction. I am a person that never gives up. I don't believe in failure, there is always a way out and I believe that nothing can stop me if I put my mind and heart into doing something. I am able to analyse things from all angles and see things differently (Participant 11).

From the interview excerpts above, it appears as if most participants' personalities played a significant role in affecting the career decisions in varied manner. Thus, the participants appear to have strong personality traits, and they relied on this to decide on future careers. In order to

succeed in a career, learners must learn resilience and undertake to adapt to whatever situation they may be presented with. The next theme discussed is learners' capability in career decision-making.

6.3.2 Theme 2: Learners' capability

Capability is an individual's capacity to accomplish particular tasks and to link such activities to a chosen career. The analysis of the participants' interviews indicated that learners were capable of making their own career decisions. The participants explained how their capabilities helped with career decision-making. The sub-themes generated from this theme include: learners' self-efficacy, locus of control (external and internal) and academic buoyancy. The first sub-theme, learners' self-efficacy is discussed as follows:

6.3.2.1 Learners' self-efficacy

Self-efficacy denotes a persons' confidence in their ability to behave appropriately to engender particular accomplishment (Bandura, 1977, 1986, 1997). Additionally, self-efficacy indicates self-assurance as well as a person's ability to stimulate conduct, and societal milieu. These intellectual evaluations of self induce diverse social knowledge, which include the aims, and ambitions that individuals make every effort to achieve, as well as extent to which they progress in order to achieve the established goal (Penn, 2016).

From the qualitative results, when asked whether they had the capacity to make their own career decisions**,** some learners were of the opinion that they required support, "*I do need support; I do need someone who knows me"* (Participant 2**).** Participant 2 believes that they need support, but participant 3 is quite confident that because of the result in life sciences, that a correct choice has been made. The participant makes no mention of requiring support as evident in the excerpt below:

> I think achieving good result from life sciences helped a lot because I do well at it and it made me think that my interest kind of matched my ability. That makes me to choose my career path in Pathology. It gives me hope that this might actually be something that is for me (Participant 3).

Participant 8 does not anticipate any challenges, but depending on the challenges, support may be required as explained: **"***I believe I will be able to address any challenge and may be sometimes I might need external support depending on the challenge"* (Participant 8**).** Another participant who believed in personal ability and confident to face challenges report that: *"Yes,*

I have the capability to face challenges because I know what the future holds is big and if challenges come, I can address it with the help of God" (Participant 9).

From the qualitative results presented above, it is apparent that only participants 3 and 9 were confident that they did not require assistance, and hence possessed positive self-efficacy about themselves in career decision making. However, although some of the participants had an idea of the career path that they would like to pursue; they anticipated challenges and stated that they would require assistance, thus they had negative self-efficacy about themselves in career decision making. Self-efficacy signifies self-assurance so it is obvious that even though some of the participants have decided upon a career, they had negative or low self-efficacies to pursue their chosen fields of study.

The next sub-theme discussed is the locus of control

6.3.2.2 Locus of control

Locus of control is the extent to which a person believes that their life circumstances are as a result of activities within or without their control. Locus of control refers to whether the results of a person's behaviours depend on their actions (internal control orientation) or whether on actions isolated from a person's control (external control orientation) (Cherry, 2019). Internal locus of control then denotes personal decisions that guide the behaviour which influences career decisions that learners make, while external locus of control refers to outside influence on behaviour.

6.3.2.2a: External Locus of Control

From the qualitative results, certain participants stated that they had the capacity to enhance their future career decision making. However, most learners had external locus of control in that they drew support from the immediate family members, friends and teachers while others developed confidence in career decision-making through spiritual guidance. While some participants believed that the secular world would be able to help them, participant 12 states quite categorically that the belief in God would lead to best career decision. The participant reported that: *"I have the capability but I will need external support because sometimes I might choose something that is wrong but the person will tell me"* (Participant 12). Despite participant 12 claiming to have the capability then realised that there will be need for support in the event

of making the wrong choice and may need the advice. Participant 17 on the other hand sought the support of those who were close when encountering challenges as indicated in the extract below:

> When the challenges came, to be honest I did not face it or conquer by myself, there are people who assisted me when I needed the assistance to do things, when the challenges came, I did not have the capabilities to face them on my own; I got external support from people around me. Firstly, it was my grandmother, my friends and my school teachers (Participant 17**).**

Based on the interview excerpts, a conclusion may be reached that these participants depended on external assistance; consequently, they possessed external locus of control. In such situations, these learners are aware of the careers they want to follow; though, they require confirmation as well as advice regarding their career choices. In many cases, learners require affirmation regarding the careers that they intend pursuing, however, bearing in mind that this research was conducted in township schools where poverty and unemployment and the communities from which these learners come is rife, it is obvious why so few learners do not have the capability to make independent decisions regarding their careers and rely on external locus of control.

6.3.2.2b: Internal Locus of Control

In some instances, some learners had negative experiences; three participants (P7, P9, and P17) reported that their teachers had no substantial influence on their career decisions. Teachers' assistance to learners was most likely focused at educating collective and shared potential. As presented in the participant's assertions: *"My teachers did not influence my career decision at all"* (Participant 17).

From the interview result above, it can be concluded that some learners had stronger internal decision-making mechanisms and therefore did not rely on teachers to make their career decisions. It could also be that some learners already have their preferred career decision when coming to school and are thus not easily influenced to change their decisions.

6.3.2.3 Learners' academic buoyancy

Academic buoyancy is the capacity of the learner to overcome obstacles and difficulties that are common to daily school life. Academic buoyancy also emphasises positive attitude rather than negative methods to academic difficulties since it focuses on a learner's answers to daily

challenges. The results showed that despite participants' negative experiences with teen pregnancy, drugs, and crime in their communities, participants resolved to be change agents and set examples for the next generation by being different from the youths in their townships. This is evident in the interview report below:

> I live in a community where girls my age are falling pregnant and boys are smoking drugs and all of that. I just said to myself that I want to be different from everyone, from the youth in my community so I told myself that instead of doing what everybody is doing, I rather be different and do what is best for me that I know is going to change my life and improve my life for the better and be able to take my family out of there because I kind of feel like it's toxic, when you do something good for yourself, people don't usually support you by saying all the bad thing about it and they demotivate you. So, my environment motivated me to be focus and goal driven in order for me to achieve my goal (Participant 1).

From the above excerpt it is obvious that participants were focused and ready to achieve their goal, learners did not allow their surroundings to deter them from becoming a better person. Participants point out that individual cannot distinguish between what is the norm and what is not. It is necessary for the youth to understand that their backgrounds should not have an impact on their futures. It is important for individuals to realise that they have the potential to achieve if they are focused. The following extract is evidence of how participants felt:

> Most people in the township don't have motivation and just see the things that happen around them and they think is the norm, the way to go and it's not normal and it's not a life, things have to change. Because where I come from has nothing to do with where I'm going, it's really up to me as an individual to achieve what I put my mind to achieve; we should just focus and forge ahead (Participant 2).

The above excerpt indicated that participants were able to recognise that their upbringing had no bearing on their future; the participant was determined to succeed regardless of the upbringing or surroundings. Participants mentioned that they do not want to focus on the negative but achieve a good pass. It is admirable that these participants are aware of the importance of a good education as evident in the interview excerpt below:

> About the money issue, I don't really stress about it because I believe that when I pass with good grades, looking at the performance I'm having now, I am going to apply for bursary that is going to pay for all these things. Whether my parent can afford it or not is secondary to me now, I just want to focus for now and get good marks. So, I don't want to stress much about it (Participant 4).

From the above excerpt, it is obvious that participants concluded that their socio-economic status should not cause challenges as they believed that obtaining bursaries will take care of all financial implications.

An individual's social environment could actually have an effect on a learner's choice of career. Below is a discussion of social factors affecting learners' career decision-making process.

6.4 Social Factors and Career Decision-Making of Grade 12 Learners

According to ecological system theory (Bronfrenbrenner, 1979), the environment in which a child is raised, has an impact on every stage of their lives. As a result, social factors influence an individual's thought, feelings, likes and dislikes, and attitudes (Bronfenbrenner, 2005). This theory asserts that children are naturally enmeshed in several ecosystems, starting with their most beloved home ecological system and progressing to the school system and finally to the larger system that encompasses society. The analysis of participants' interviews assisted to identify social factors that influenced learners' career decision-making process. The participants expressed what influenced their career decision-making in diverse ways; participants' responses on career influences were exceptional. It was very interesting to discover that learners were influenced in a variety of ways during their career decision-making process. In addition, learners demonstrated a high level of belief in themselves and their capability to implement change in their family and their environment. It was necessary to categorise themes according to the information presented by the participants based on what was perceived as influences in their career decision-making process. Several social factors are pertinent to this study, which includes family-related factors (siblings influence and parental influence), school-related factors (teachers' influence, friends/peers influence and subject influence), as well as community-related factors (peer influence, support from neighbours, media influence and role model influence).

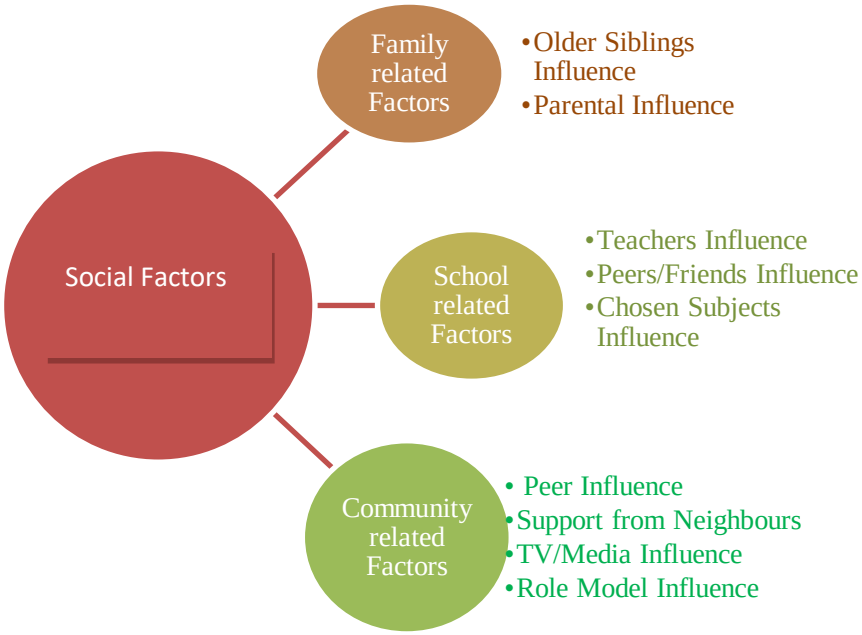


Figure 10: *Themes and sub-themes on social factors influencing learners' career decision making*
Source: Primary data (2022)

6.4.1 Theme 1: Family related factors

Families have a major influence on their children's choice of career. Depending on the parents' backgrounds, views, perceptions and personal experiences, children may be influenced accordingly. For example, parents from an affluent educated background would attempt to influence their children to pursue academic careers or the most favoured careers such as, medicine, law or accounting. In most of these cases, the youth are influenced by parents who want their children to have a good career. However, children from disadvantaged backgrounds are not given a choice because they are expected to go out and find employment to assist with family income. Participants pointed out that in many cases family had not influenced their choice of career because depending on the situation of the family, learners were given the opportunity to make their own decisions regarding their career choices. The qualitative results of the study indicated that family factors that influence career decisions among grade 12 learners include older siblings influence, parental influence (father's influence, mother's influence), and they are discussed as follows:

6.4.1.1 Older siblings' influence

The results of the study reported that sibling influence was an important factor which influenced career decisions among grade 12 learners. This study found that most participants gave credit to their siblings for the choice of their careers. Participants explained how they were supported by their siblings while others gave reasons why they want to pursue careers that relate to their siblings' career choices. Participants were influenced both positively and negatively by their siblings based on individual circumstances; the evidence below is a confirmation that siblings had an influence as well as provided support for the career choice of their siblings:

> My sister too supported me because she knows a lot of stuff about computer. When I told her that I want to study computer science, she said I also wish I took that because it's a good thing and she also went to the university but still sitting at home, unemployed. She also influenced me because I was thinking which career can I choose that is going to have more jobs because with some of these traditional careers the job opportunities are limited, they are closed profession (Participant 4)

From the interview excerpt from participant 4 above, it is evident that older sibling influence played an important role in shaping younger sibling decisions on the bases of careers that were considered to be marketable and had job openings as compared to other careers which were regarded as having few opportunities.

The qualitative results further reported that older siblings played a significant role in influencing younger siblings' career decision making from varied perspectives and contexts as is evident in the following interview excerpts:

> I have elder sister and brother, when I told my brother that I want to do computer science, he looked at me, he went quiet for a while and then he said it suits you. He said you are always on your book and you are focused, you have a personality of being focused and computer science needs such people. My sister was helping with online application at the university and I told her about computer science, she just looked at me but didn't tell me why; she just smiled (Participant 8**).**

From the above excerpt, it can be concluded that final career decisions of some learners were reinforced by the support and influence of older siblings who argued that they had better knowledge of the careers. The older siblings had knowledge of matching personality of the younger siblings to potential careers and this influenced career decisions.

The results also indicated that in making career decisions, the learners reported to have learnt from the mistakes that other siblings made. This is positive because they are able to discern the mistakes which are positive and encourage them to choose the best career that would be beneficial to them in the future, as evident in the following statement:

> My older sister at first, she said she wants to do engineering and then she moved to hospitality and I thought to myself that I don't want to see myself as my sister because that is why God made us to be different. I decided to go on my own path and see what I can do and that is why I said it will be Information system, DJ and trading (Participant 7**).**

From the interview excerpts above, it can be concluded that some learners made their career decisions upon reflection of career decisions that were made by the older siblings, which were regarded as not useful as they did not yield jobs as expected. Therefore, through modelling, the learners made decisions which would not lead them to similar joblessness predicament as was seen with the older siblings. In other results, the participants reported that the support that they received from their older siblings influenced their career decisions, as illustrated in the interview excerpts below:

> My sister is at the college studying financial management; with her I've received a lot of support telling me that I can do it. She is my strength most of the time (Participant 11).

> My brother influenced my career decision to study law because I want to be like my brother, he is a hard worker (Participant 14).

> My brothers encouraged me to do what I love and what my personality can go with, so that I don't get frustrated at the end (Participant 16).

From the results presented above, some learners were influenced to make their career decisions through support, identification and role modelling by the older siblings. The older siblings acted as role models to the grade 12 learners in their respective families and this shaped their respective career decisions. In addition to older sibling support and influence, parental involvement is very important when learners are deciding upon a career path. The next sub-theme interrogates the influence of parents.

6.4.1.2 Parental influence

With regard to parental influence, participants indicated that parents who understood the system and career paths that could be chosen were very supportive. Some participants were influenced by the advice received either from their fathers or their mothers in choosing a career. This section

discusses the influences that participants received from parents, either father or mother or both parents.

6.4.1.2a Father's influence

Fathers play an important role in their children's choice of career and many children rely on their fathers' advice; in some cases, the boys want to emulate their fathers. However, this can only be done if the father has a career that the boys admire. The qualitative results reported that some male learners identified with their father's careers and this influenced their decisions and some female learners also indicated to rely on their fathers' advice regarding their careers. The following excerpt show that fathers had quite a strong influence on their children's career choice.

> Uhmm… My dad plays a huge role in my life and he is okay with everything that I do and he wants me to be happy, that is it (Participant 6).

In another school, it was reported that a participant was influenced in choosing a medical career after having seen the father's predicament of having persistent heart sickness which made him visit several hospitals for treatment with no success.

From the interview result presented by participant 6, it is evident that the learner's career choice to pursue medical field related area was directly shaped by the desire to obtain knowledge which could help address sicknesses that were prevalent in their family. Therefore, career decisions in certain instances were due to family circumstances that surrounded parents. In other schools, some learners reported that the support that they received from their fathers influenced their career decisions. The learners reported that having very influential fathers shaped their preferences for certain careers because of the support they received from them hence their final decisions for their children to be successful in their chosen careers, it would be necessary to support them. This is apparent from the interview excerpts of participants11, 12 and 15 as presented.

> He also wanted me to study engineering and he was very persistent about it then I told him that I will like him to respect my decision and support it and now he is okay with my decision (Participant 12).

> My dad knows that I am always passionate about script writing and he always encourages me because we always watch movies together, we will analyse the story together, do you find the story interesting, do you understand, I have that kind of relationship with my dad (Participant 15).

> My father told me in Grade 10 when I was asking him about what I can do, I don't know but he just said I lie a lot and he thinks because of that I will be very good as a lawyer.It just feels like my father read my mind when he said I will be good as a lawyer because I already had it in mind to study law (Participant 11).

According to the findings of participants 11, 12, and 15, fathers who want their children to succeed in life make it much easier for them to pursue their goals and achieve success. It gives learners hope when their fathers encourage them in their chosen profession before they apply to university.

Apart from fathers influencing their children's careers, a mother's role is also pivotal in advancing her children's decisions regarding a career. A mother's role in her children's choice or decisions concerning a career is discussed next.

6.4.1.2b Mother's influence

Mothers generally play a major role in influencing their children's careers. The findings of the study reported that mothers inevitably try to provide the best that they can for their children and in addition they will go extra mile to assist and encourage their children to pursue a career, as stated by participant 1:

> So, I said to myself that because my mother couldn't succeed to fulfil her dream. I can't be the same, like I need to be different from her. I need to make sure that no matter what, I succeed. So, in a way my mother's failure had encouraged me or motivated me to work hard in achieving my goal. I don't want to fail where she had failed, I don't want to repeat history (Participant 1).

From the interview excerpt above, it could be concluded that learner's desire for the forensic anthropology was shaped by the mother's advice. Therefore, this finding affirms the view that mother's influence career decisions of their children.

Another participant reported that the choice to pursue medical career was influenced by the mother's medical condition, and this is presented in the interview excerpt below:

> My mother's condition influenced me to choose the career that I have chosen. Well, my mother was the only person I ever been close to, when I first told her about my career, she was like you really, I'm seeing a lawyer in you, I said I'm not even there. She believes that I'm like this taking ownership type of person, owning and defensive. But I am not interested, even my grandmother also sees a lawyer in me, apparently, according to them I am talkative, always defending people, going against them and I disagree with them. Maybe because I love argument and debating (Participant 2).

From the interview excerpt presented above, it is evident that parental circumstances shaped and influenced a change in career decision of some learners. The career decision of the participant changed from the earlier preferred law due to the medical condition of the mother and eventual demise which eventually led to a choice of career in medicine.

Some participants also reported to have been influenced to make certain career decisions due to the support obtained from mothers. In one instance, a learner reported that they received support to pursue their preferred career through the support of their mother, and in another instance, a learner reported having received pressure from family members to pursue a career in Medicine, against teaching; however, the mother defended the teaching choice and pointed out to the family that everyone needed their own preferred careers. In relation to these, participants 4 and 13 reported the following in their interview excerpts:

> My mom always influences me to do this because she always supports me in everything I do and when I told her about computer science and I explained it to her, she said okay if you like that then go for it (Participant 4).

> Mothers do have the soft spot for their children, no matter what the family says about me, they tried to talk me out of me becoming a teacher because they want me to become a doctor and make money but my mother on the other end will tell them that my child need to do what he wants so that he can be the best in it. My mother always motivates me, she said do what you need to do and she had shown me a lot of reasons why I need to become a teacher rather than to impose her idea on me, she understood why and she has been there supporting me (Participant 13).

From the qualitative findings above, it is evident that the mother plays an important role in the career decisions that their children make. Some mothers are very supportive and believe that they know best and that they know their children better than the children know themselves.

Although, there is a perception that children from disadvantaged home are not given the opportunity to choose their own careers, many of the participants in this study indicated that they are quite confident that they are able to make their own career choices without any interference from their family; this is evident from the following excerpt:

> They had none, my family actually told me that whatever career that I choose they will support me because I am the one who knows what I am capable of doing, they can only give me their support with whatever career that I choose (Participant 1).

From the above excerpts, it is apparent that there was no family influence and that participants were given the opportunity to make their own choice, with the assurance that they would receive

support from their family. Participants were certain that their family had played no part in their decision to choose careers as is obvious from the following claim.

> On the career decision, I don't think they have much influence on it because I just came to them and told them about it that this is what I like but I think if there is one thing, they have influence on, is where I might study, you can't go too far because you are going to face challenges alone, what happens if you are not feeling okay, who's "gonna" be there for you. Those thought are very scary on their own so it might have limited my decisions on where am I going to study. It has limited my choice in a way because is not every University that has what I want to study and they ended up telling me just study whatever so that we can visit you. I do understand their concern and they are valid, although I think their concern might disturb me from exploring my full potential and that also has its negative part because if I just go out there on my own it might actually be my downfall, so their concerns are valid (Participant 2**).**

From the interview data presented by participant 2, it is apparent that the choice of career was an independent decision. However, the fear of a lack of support by the family influenced the choice of the university, despite the fact that the chosen career is not a prevalent one. Consequently, this placed limitation on the choice of career, by the family placing the participant in this invidious situation, the learner may not be able to pursue the career of choice.

However, some of the participants expressed the support and motivations that they received from their family during the crucial time of career decision-making. As much as the participants were given a free hand to make their own career decisions, they were being reminded of the situation in the world of work, and the ability for them to engage in meaningful employment after achieving a qualification, which should be considered when making a career decision as mentioned in the excerpts below:

> My family does not have any influence on my career decision; they just want me to choose a career that will guarantee me a job when it is time for me to get work. I told them that I won't do things so that I can get work or make more money but I want to do things because I have passion or love for it, I don't want to do things that will make my parent happy and I will not be happy at the end of the day (Participant 5**).**

> There is not much influence from my family, at home I can say everything is going well and so there is nothing that came from my family because this is my sole decision. It is only in law that I can say I have influence; my cousin is doing her final year in LLB in University of Kwa Zulu Natal. She really motivated me and I think if I study law, I might get all the help that I need from her. My cousin does motivate me and she said I can rely on her for help if I need one. She influenced me to pursue law and she is not enforcing anything (Participant 9**).**

From the results above the participants 5 and 9 pointed out that career choices should ensure employment after graduation. This is valuable advice as some learners choose careers that do not ensure employment just because it sounds attractive. However, a member of the extended family who is pursuing a similar career may influence choice of career. An erudite comment from one

participant regarding choice of career is that the choice of career should please the child and not the parent.

Apart from family related factors learners cited influence from school and other individuals, for example teachers, this is presented below.

6.4.2 Theme 2: School related factors

This section presents the information gathered from the participants during the interviews regarding school related factors that influence learners' career decision-making in the school setting. The sub-themes which emerged include teachers influence, friends/peers influence, and subject influence which are discussed as follows:

6.4.2.1 Teachers' influence

The teachers have a very significant influence on learner's career. The results indicated that most learners made their career decisions from advice given by the teachers who also act as role models. In one instance, a learner reported to be passionate about a career in geography but this decision later changed after discussion career options with the geography teacher. This is expressed in the following excerpt:

> I always discuss my career with my teacher and that has really helped me because there was a time when I wanted to pursue a career in Geography and then she sat me down and asked me I hear you but what are you going to be and what are you working forward to and I was like I don't know but I just love the idea of pursuing a career in Geography. I don't see myself spending the rest of my life busy with climates, sands, rocks or mountains. What she said to me brought me to my senses and I think as much as I enjoy it, is something I might take as a hobby but not as a career (Participant 2).

From the above interview excerpt, it is evident that the career decisions of learners were greatly influenced by the teachers and that even though the geography teacher was in the career related to the subject, own experiences in the teaching career led to a different decision with the learner who had earlier indicated preference for career in geography related field.

In a school, one participant indicated to have chosen a career in mathematics after career guidance from the mathematics teacher in their school. In another school, a learner indicated having received support from the teachers to pursue a career in technology related fields. The

interview excerpts from the two learners are presented below: I've *always looked up to my teachers as role models but mostly my Maths teachers and also the notion that Maths is difficult propelled me to wanting to be a teacher. "The support impacted me in a good way because when I told my teacher about what I want to do at the University, he told me that is a great idea and the fact that I want to impact the world of technology, is a brilliant idea*" (Participant 4).

The qualitative results indicate that teachers play a crucial role in the lives of learners in school, because they are seen as role models and are thus able to positively impact their lives. The teachers are seen to understand the learners' strengths and weaknesses and are therefore in the best position to provide best career guidance to them. The results also indicate that, most learners also trust the teachers' decisions and thus this greatly affects career decision making that they make.

Although friends/peers are often thought to be a negative influence, there are certain instances where friends could have a positive influence; the influence of friends/peers is presented below.

6.4.2.2 Friends/Peers influence

The qualitative results indicate that all the participants posited having obtained either emotional or informational influence as a result of interaction with their friends/peers which eventually affected their career decision-making process. The results indicated that many of the participants in this study had good friends who supported them in their career choices. The excerpts below bear testimony to their claims.

> I fell in love with it [Forensic Anthropology]. So, she was actually the thrilled friend who motivated me to continue even though she later changed. She hasn't decided on what to do next, but she has been able to influence me positively (Participant 1).

> …my friends that we did coding together in Grade 7, 8 and 9 because I know two of them who want to study computer science as well (Participant 5).

From the interview excerpts above, it is evident that some learners got extrinsically motivate to pursue certain careers as a result of the influence and support of their peers and friends in school. Therefore, it can be concluded that friends and peers determine career decision making among learners.

In another school, a learner reported having received support from friends that helped in making career decisions. The learner further reported to have obtained advice on financial support when depressed all of which was significant in completing schooling. This is as indicated in the interview excerpt presented below:

> Like, I have a friend who always encourages me to purse my dream and she motivates me because sometimes I can be demotivated but she's there for me always, when I'm down and I don't know what to do, she reminds me that girl you said you wanna be this and we help each other to find bursary, she also tries to get people who has been in the field to give me information (Participant 6).

From the interview excerpt above, it is evident that peers and friends remain as a significant influential factor in the carer decision making among learners. From peers, learners obtain career information and support which all assist in career decision making.

The results also indicated that some learners made decisions regarding certain careers after obtaining feedback from other learners on the perceptions towards concerning their capability of pursuing the careers. In one school, participant 13 made a decision to pursue a career in mathematics following feedback from the mother. In another school participant 16 made a decision to pursue to a career in medicine following positive feedback from other learners on his behaviour and academic potential. In another school, participant 8 was influenced by the friends to choose a legal career because of the behaviour of being untruthful in most instances. The three interview excerpts from the participants are presented as follows:

> Well, friends and my peers, I'll say they serve as point of reference; I approached them only to find out what they make of me being a Maths teacher. It helped in my decision because majority of them said I will make a good teacher and I have been assisting some of them with Mathematics (Participant 13).

> "…my friends always tell me that I will make a great doctor because of the way I behave and the result that I get at school. My friends always push me to get good grades because whenever my grades are low my friends will call me to order that this is not working, that I have to push myself so hard and get good grades for myself" (Participant 16).

> My friends make me lie for them a lot especially when they are in trouble, so that also influenced me that I can actually be a lawyer and they take advantage of that because they think people believe me even when I am lying. None of my friends wish to be a lawyer because they think they cannot do what I do (Participant 8).

From the qualitative results, it can be concluded that peers play an influential role in lives of other learners in making career decisions. The learners considered the views of other learners regarding the careers that would be appropriate to them. The next sub-theme discussed the influence of chosen subjects on learner's career decision-making.

6.4.2.3 Influence of chosen Subjects

In South Africa where this study was conducted, learners in Secondary Schools have the option of choosing their subject combinations at the beginning of Grade 10, which would determine the type of career they are able to choose after Grade 12. This allows learners to engage with the subjects and merge subjects that best suit their interest and describe their abilities. When asked if their subjects had influenced their professional decisions, eight participants (P3, P4, P5, P6, P7, P8, P10 and P22) admitted that they had been influenced by a variety of subjects that they had chosen. For example, the love for Mathematics and problem-solving influenced participant 4 into choosing a career in Computer Science. Interest in a subject may assist learners in choosing a specific profession that is related to the subject of interest as stated in the following statements:

> I'm doing science subjects, so the main influence has to be Life science and Physical science, especially the Chemistry (Participant 3).
>
> These subjects (Economics, Law and Political Science) influenced each of my career decision, Economics, Law and Political Science. I will be comfortable with any one that falls through at the university because of the stream that I am doing now (Participant 10).
>
> There was a subject like that in my previous school as I have said, it is called coding and it's an extra curriculum thing at that school (Participant 5).
>
> It is Mathematics. I do love the subjects so much. In Mathematics we deal with solving problems, so when I researched about computer science, I found that it's about solving problems, adding, subtracting and all those things and I said to myself let me go for this since I like maths so much (Participant 4).

The above four excerpts are an indication that subject choice is an important aspect in career decision-making process. The choice of subject gave learners the opportunity to make desired career decisions. Interest in a subject could assist participants to develop interest in a certain profession which could serve as the opportunity for learners to develop their inherent skill and ability.

The interview results also revealed that some learners were inspired by their previous learning and inquisitiveness to pursue careers that would satisfy their curiosity. Participants highlighted how their subjects has influenced their career decision and piqued their curiosity in learning more. Participants also indicated that happenings in society and community events that relate

to their subject choice encouraged them when making professional decisions. Participants expressed their experiences:

> It started in Grade 10 when we learned about viruses in Life Sciences and the teacher told us that we have viruses and I was wondering how did they get into our system, he started to explain and Covid-19 came and it can be removed with sanitizers and I also have a lot of questions, and I wanna know more about the way viruses and bacteria affect us (Participant 6).

> When it comes to Business Studies and Economics, is something that happens around us and doing business for me will be a good idea, like doing trading. When it comes to IT, there are a lot of IT technicians working in companies. With trading it is because of Economics, the stuffs that we do in class and the teachers that teach me Economics, so I have been influenced into trading by the things I learned at school and my surroundings (Participant 7).

> The apartheid history like our people fought for their rights and then I thought law is fighting people's right so it will correspond with history. History has influenced my decision to study law (Participant 8).

Therefore, it is apparent that participants were familiar with the content of their chosen subjects and were able to connect them to occurrences in their environments. The knowledge that is acquired in the classroom could enhance individual growth and development. The majority of the participants reported that their subject choices had a significant impact on their career decisions. Participants were able to combine their vocational interests with their learning by understanding the subject content and application. The theme on community related factors is discussed next.

6.4.3 Theme 3: Community related factors

The community influence, which was thought to influence the participants' career decision-making process, was another key factor that emerged from the analysis of participants' interviews. Twelve of the twenty-three participants were of the opinion that their feelings about what was going on in their neighbourhoods had influenced their career choices. Through their contacts, interactions and activities, these individuals realised that they were members of their community. The participants stated that the community had, had no beneficial impact on their lives or career decisions. The four sub-themes which emerged from this theme of community influence include; peer influence, support from neighbours, media influence and role model influence as discussed below:

6.4.3.1 Peer Influence

Twenty of the twenty-three participants claimed that they were demotivated as a result of their community's difficulties, but they were able to use the degradation to their advantage by being focused and inspired to be goal-driven and achieve success. People expect their children to pursue a more well-known career, but there are diverse careers that are available for school leavers to pursue, of which the community is unaware. Some of the participants believed that by pursuing a career that is extraordinary, they will be contributing to the knowledge and widening the horizons of their community. However, some participants appeared to be despondent about the current state of affairs and talked about the diseases that plague our society. Participants believed that society has adopted a defeatist attitude and they felt that it is necessary to be active and change the situation. Participants have the following to say about the career paths that they had chosen:

> I can say that the careers that I want to pursue are not really something that is well known to people in my community, is something that the society is not really exposed to, like the doctor or teacher. Then I think why not let people know this because of me, so why not study and come back to my community and let them know me as a Forensic Pathologist or Forensic scientist, to educate my community through my personality (Participant 3).

> Okay, today's teens are those who are exposed to HIV/AIDS and sexually transmitted diseases and, I don't know how to put it, if it's their fault or not their fault. Come to think of it, it feels like we are a dying nation, there is nothing we can do about it, in a way we have to be like it's there and accept it, nothing to do about it. I don't want that; I don't want the next generation to suffer because of our mistakes that we are making right now. Yes, greatly because of the diseases that we have in the community, COVID-19, HIV and so on, some say they are going to be part of our lives for a long time. But I think we can change that, we can be Corona free, and HIV free and cancer free (Participant 6**)**

From the above excerpts, it is evident that participants are determined to change the future and impact their community and society positively through their dedication. Two participants (Participant 8 and Participant 14) revealed that the high crime rate in South Africa had influenced their decisions to become a Lawyer as they believed that there is a need for honest lawyers who will behave in reliable and law-abiding manner. This is exemplified in the following excerpts:

> The high crime rate in South Africa, so by that I believe that lawyers can prevent crime in a way. Like most lawyers work for the wrong person and help them to get out of jail, I want to be a good lawyer, if I know you did wrong thing, I will send you to jail so that you can spend your time and pay for your sins like the bible say. This influenced my decision to help my community to be free of crime and for them to enjoy their movement (Participant 8).

> The crime rate in my community influenced my career decision; I can help the community to put away criminals who are disturbing the community. I can work with the police to arrest criminals (Participant 14).

It is apparent from the above excerpts that participants believed in lawyers' ability to relieve the country of crime. Consequently, participants have the desire to be honest; this is admirable as what these participants wanted to do was to assist by getting rid of crimes in their community. It is evident that peers in the community could influence participants' decisions if not focused and determined. Support from neighbours is discussed next.

6.4.3.2 Support from Neighbours

Some participants indicated that neighbours influenced their career decisions. Four of the twenty-three participants (P12, P16, P19 and P22) reported that they received either emotional or informational support from neighbours. This support serves as a motivating factor for participants to be focused on their studies and to achieve their desired goals. This is illustrated in the two excerpts below:

> …So, if I become successful, I can move to a place that is much quiet and I can interact with less people because I want to be different from my environment. Our neighbour used to advise me to study my book and be a better person (Participant 12).

> No influence at all from my community because I don't participate in community things. The only people I can say motivates me are the people who usually do volunteering stuff at the police station, they say I must work hard to be what I want to be because getting there is not easy. They encouraged me to be focus because staying in my community is not a good thing and I might end up doing the wrong thing, so they want me to push myself (Participant 16).

The qualitative results above revealed that participants were very negative about the communities in which they reside and had not influenced their career choices in any way. It is admirable that as a result of the undesirable communities in which these participants live, they had been influenced by their neighbours to choose careers that would remove them from these communities.

However, most participants (P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P13, P14, P15, P17, P18, P20, P21and P23) did not ascribe any influence from the community; instead, they prefer not to interact with the community, which leaves much to be desired. As a result, these participants would like to disassociate themselves from the community in which they reside. These participants claimed that the community played no part in their choice of career. In fact, they were so disenchanted with the community that they wanted to get away and improve their lives. This is evident in their interview excerpts below:

> My community has not influenced me in anyway because there is not a lot of movement in my community that might have influenced my career decision. The attitude around me in my community motivated me to want to be a better person (Participant 18).

> Well, the people in my community, I can say I don't go out much but with the area in particular I can say I really wish to move out of that community because it is very much noisy and you are forced to interact with people sometimes even maybe you don't want to, you have to adjust (Participant 11).

From the above excerpts it is apparent that the environment in which participants reside is not conducive and motivating for them in any way that could contribute to their career decision-making. Moreover, what may be inferred is that they could not wait to get out of their communities and begin a new life.

Sub-theme below discusses the influence of TV/Media on career decisions of grade 12 learners.

6.4.3.3 TV/Media influence

In recent years, the media has come to dominate most aspects of life, particularly among the youth. Depending on their life experiences, most people turn to the media for information, support, and a variety of other things. As a result, the adolescents perceive the media as a source of answers to most of their problems as well as an example on which to model how to live a decent or flamboyant life. However, when used properly, the media may be a useful tool for learning new things and honing existing ones. In some cases, the media prompts participants to investigate and learn something new about themselves as part of their career decision-making process, assisting them in choosing the desired careers. Five of the twenty-three participant actually drew on what they had learned from watching television and it widened their knowledge and awakened an interest in their choice of careers, which subsequently led to their decision to pursue a career in what they have seen on the TV. Below is a participant's statement pertaining to TV and media and the role played by media in choosing a career.

> So, I actually watched TV which I can say helped me to identify being a forensic pathology or criminology. I used to watch this channel that deals with murder and investigations and I enjoyed watching that, which influenced my decision towards my career choice. I have been influenced majorly by the media (Participant 3).

From the above excerpt, it is obvious that one cannot make a blanket statement saying that the Television is a good source of information, as it depends on what may interest the individual.

With regard to participant 3, her choice of career resulted from engagement with the information gleaned from television programmes. Television does not always have a positive influence on teenagers. However, in this case it did. Some participants claimed that as a result of watching movies and reading newspapers their curiosity about technology and events in their communities took root and wanted to know more, which prompted participants to conduct research, which opened up new vistas as a result of watching Television:

> The thing that made me stick to Computer Science is that I once watch a movie and those people were explaining how technology is important to us and I was like what can I do to be involved in this thing and then I research and saw computer science, IT. What I saw on the TV and my thought kind of goes together then I made my decision from there.I went to another website, I went on Google and search computer and they showed me options chasing computer science and they gave me some result and I chose computer science (Participant 4).

> I often see on TV and I do read newspapers, see Economic analyst analysing things that are happening in our country, I do get interested and develop interest in the career. As for law I feel like there are so many socio-economic issues that I can solve by being a lawyer, for political science, I am also interested in politics and same as law (Participant 10**).**

The implication from the excerpts from participants 4 and 10 is that television proved to be beneficial to participants to decide upon a career path after watching movies and programmes which aroused curiosity in them. The decision to pursue a career might be prompted by media activities, which could serve as a driving force towards research into different field. It is promising when learners derive some benefits from watching television. In addition, reading the correct newspapers such as the Mail and Guardian and the Sunday Independent can truly broaden their horizons. Although many learners may be influenced adversely by Television, it depends on the nature of the programmes that they watch. In all the above examples, the participants had benefitted from watching television, which subsequently influenced their choice of careers. Apart from the part played by television in influencing the choice of careers, role-models played a significant function in career choices, which is discussed next.

6.4.3.4 Role model influence

Four of the participants (P7, P11, P17 and P20) pointed out that a role model has a substantial impact on a learner's career decision-making. According to participants, role model provided a supportive background for one to pursue a career path in the same or similar direction. One of the

participants in particular mentioned that, despite the fact that he has been dancing since he was a child, the presence of a role model made him believe more in his ability to pursue a career in dancing and music. This is evident below:

> For the DJ that I do, that happens because I have been dancing since I was small and I fell in love ever since, I have a role model, Prince KB, ever since I saw that guy, it's been music ever since (Participant 7).

It is evidently clear that having a role model might provide a chance for someone to emulate the role model in order to achieve their goals and objectives. As a result, the participants will be able to establish themselves and take advantage of the role model opportunities. In almost all careers, role model could play a major deciding factor; many learners are unable to pursue their chosen careers due to a lack of role model.

6.5 The influence of demographic factors on career decision-making

During the interviews, learners responded to demographic questions in diverse ways, hence it was necessary to categorise themes according to gender and age based on learners' responses.
This section presents the demographic factors that influenced learners' career decision making. The following section deals specifically with how gender influenced learners' career decision-making.

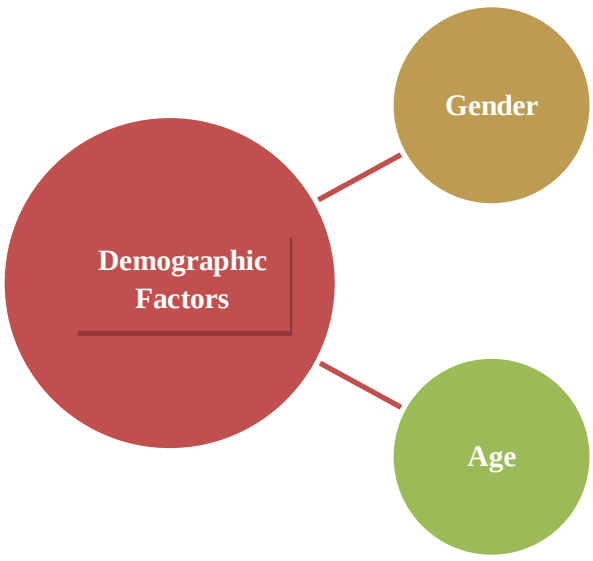


Figure 11: *Themes and sub-themes on demographic factors influencing career decision making of learners*

Source: Primary data (2022)

6.5.1 Gender and career decision-making

Gender is one of the human characteristics of identity that is frequently utilised to separate people in society. Gender is integrated into people's self-concepts from an early age (Huffman, Olson, O'Gara& King, 2014). Gender has an impact on a variety of attitudes, behaviours, and outcomes in the workplace. Career choice, career experiences, work attitudes, other people's perspectives, and career results are all factors to consider. As a result, gender must be considered while analysing people's career decision-making processes (Makarova & Herzog, 2015). With specific reference to gender as a demographic factor, it is remarkable to note that all learners who participated in this study believed in gender equality, participants expressed their opinion in relation to gender equality, at home, school or even in the work place, one of the participants responded thus; "*I feel like there is no superior gender, I feel like we are all human and we are all equal"* (Participant 19). Equality is one of the criteria that everyone is clamouring for in this present age, be it at home or at work. Men and women of various status and pedigree want to be reckoned with irrespective of their race, colour and background. The excerpts below bear witness to participants' testaments:

> I don't, like people saying some jobs are for…and I don't understand that and even a man can do a woman's job and a woman can do a man's job. I don't know why they should make certain job for men only and certain job for women only, it doesn't make sense to me and I don't like that. I believe anyone can do any job (Participant 19).

> I don't like boys hating girls or girls hating boys because people will just say boys will get more money, it's not like that so let me just say women have the equality that we have as men because girls also need to have money because some white like to say boys will have this kind of money and girls will have this kind of money, it's like inequality kind of company. Things happen like when the workshop is abused like when men and women are fighting for the same thing, I believe what a man can have a woman can also have as well (Participant 22).

> I think gender equality is fair because it will not be fair if a man has more value than the woman because the man will be placed higher than the woman. I think a man and a woman must have equal value (Participant 23).

The above extracts revealed that participants' 19, 22 and 23 view both genders as being equal and do not believe in gender disparity. Participant pointed out that everyone should be given equal opportunity and treated equally to take up desired employment without being prejudiced. Participant 20 experienced the stereotype that is available in the field of Engineering while

discussing choice of career, which indicated most people are of the opinion that certain jobs are for men or women, such as engineering as a career for a female.

Another participant on the other hand indicated that men should be given the upper hand at home in order to make them feel "in-charge". However, the participant also concurred that men and women deserved to be treated equally at work and earn the same salary while performing the same duty. The excerpt showing the participant's view is as follows:

> Honestly, I think it's okay but sometimes you know what men are, you just have to give them that 10 percent, so you have to give them 60 and you take 40 so that they can feel like they are higher, they are the men of the house. Although it depends on the situation, when it comes to jobs it has to be 50/50 because I can't be an Accountant and I will earn little while a man will earn more money because he is a man. So, we have to earn the same amount as men and women, no cheating (Participant 21).

From the above interview excerpts, it could be concluded that participants agreed that equality should prevail in the workplace and when choosing a career males and females should not be stereotype into choosing what is regarded as male or female careers.

Some of the participants presented their arguments on gender equality from single parent perspectives and the level of poverty in society. This was observed as something that affects both genders, in which all genders have to provide for their family by going out to earn for their daily bread. An excerpt from a participant interview is as follows:

> Well, jobs are for both genders because let's have a look at poverty now, if they say only men can go for a job and why can't women also provide for the kids? Just a question because people don't know why mothers are also busy because children always need something at the school and she needs to provide for the kids and mothers also need to provide for themselves also. Looking at it from a single mother's perspectives, if a man can get a particular job, women should also be allowed to get the same type of job to provide for her family and herself (Participant 22).

From the interviews conducted with learners, it was also evident that gender stigmatization existed in the workplace because some women do not have the same opportunities as men in the execution of their duties. According to participant 1, women were still discriminated against based on their physical abilities. The participant reported that: "*It is a problem in some places, some women can't do certain jobs because they are telling them you can't do this, you are not strong enough as the men, so obviously it still exists*". All the participants supported participant 19's opinion that gender bias still exists in the workplace, as evidenced by the following excerpts:

> I believe that because in the work place we have to be equal and respect each other and respect our spaces and in the work place if there are sexual harassment and bullying, I don't think people will work well together, there is need for team work. It is unfair for an employer to choose men or women; he has to mix gender (Participant 21).

> …it shouldn't, there shouldn't even be any of this, like you can't do this job, this is men or like…I feel like we should all have the opportunity to do the work without being given to male or female only. Even women can go into mining, it shouldn't be restricted, and everyone should have the opportunity without restriction (Participant 19).

Participants indicated that self-esteem was very important and that it would be insensitive to discriminate against someone as this might affects the person's morale and self-esteem. Furthermore, participants asserted that low self-esteem could affect individual's level of productivity in the workplace and also destroy their self-confidence. Another participant reported that gender bias was not fair, and indicated creation of man before a woman was not a reason to discriminate. . Below the evidence from the extracts:

> …it's still a problem because why will you discriminate against somebody, what if that person's self-esteem is low? It is going to affect them and that will be insensitivity on the part of people. It can affect their productivity in the workplace as well as their self-concept could be damaged because of what you did or said and can destroy their self-esteem (Participant 22).

> Gender bias is not fair because it is not fair for a man to be higher than a woman. Just because a man was created first before women does not mean men should be higher than a woman, so I don't support gender bias in the work place (Participant 23).

It is a common thing for people to choose career based on their gender, because people assume that certain profession is meant for certain gender, which sometimes disrupt individuals from choosing their career based on their passion and interest. Participants' interviews revealed that learners' career choices were not based on their gender but rather on their passion, interest and their future aspiration. Participants' opinion is presented in the excerpts below:

> …it was not base on my gender, I did not put my gender into consideration, and I just thought that teaching is what I want to do without even thinking about my gender. Gender has no influence on my career decision (Participant 19).

> I chose my career path because I love cars. I found it to be a curious career and I want to do it in order to unmask my curiosity (Participant 20).

> My decision was not based on my gender, it was based on becoming what I want to become. I am very happy with what I have chosen to be (Participant 21).

> I wouldn't want to be a programmer because of my gender, no; it's all about doing the things that you love. My decision was purely about my love and interest for computer rather than my gender (Participant 22).

> I did not choose my career because of my gender. I chose my career because it is what I want to do, I don't care if there are men there, and I don't care if I am the only woman. The only thing I care about is making money and providing for my family and also be happy with my career choice (Participant 23).

It is apparent from the above extracts that choosing a career path is imperative. As indicated by the participants, choosing a vocation has nothing to do with gender. Choosing a career is a task that must be fulfilled by every individual irrespective of gender.

One of the careers that is still dominated by men is the Engineering field, a more recently career in IT. However, it is still a challenge that women are employed in positions that were jealously regarded as position for male only. The next theme that emerged was age and career decision-making, which is discussed next.

6.5.2 Age and career decision-making

At the young age most people dream about becoming so many things and are fascinated to accomplish their goals, without given any consideration to pre-qualification requirements, either social or academic and also the environmental demands in achieving their desired careers. The majority of the participants reported that as they grew older, they became wiser and were able to decide on the appropriate career choices unlike when they were younger. Most participants at a younger age decide on career based on 'fantasy' rather than reality because of their age. Fifteen of the twenty-three participants mentioned that when they reached Grade 12, they could think better based on the reality of life. The participant's response is presented below:

> Actually, I don't think is my age, I think is my mind set but yeah age also, because I grew up and then I realised singing won't do it for me anymore so. Is like you don't always get what you want, like you can dream about something but when you grow up you realised that okay, no this, no, this is not going to work (Participant 19).

Age could be a motivating factor in career decision making but in some instances individual's interest and subject choice could be of a paramount importance in career decision-making as explained by one of the participants: *"My age did not influence me, but rather what influenced me was when I got to Accounting class the numbers enticed me"* (Participant 21). Participants reflected on their initial choice of career and what is happening in the university presently and concluded that it is better to base one's decision on the happenings presently, as revealed below:

> It influenced me by opening ideas because I wanted to be a Lawyer and it didn't work and at the University you might think you want to try another thing. Experiencing other subjects also comes to that thing that made

> me feel let me try other subjects and ended up liking Accounting. I can say I am more matured now and looking at the reality of what is happening around with the University, some people might want to study one thing and it will not work (Participant 21).

> I think it does because in class I remember when I was in the younger age there was a teacher that I used to love so much, so when we were learning about stars and that is when I wanted to do astronomy but then it shifted when I grew up. Then I felt this is not what I wanna do, this is what I wanna do and decided on Engineering (Participant 20).

Individuals might be influenced in various ways, however, before deciding on a career path to follow; several factors need to be considered in order to achieve one's set goals. The participants' interviews showed that the majority of the learners are taking cognisance of changes in their age and society as a factor to improve their decision in order to achieve their future ambition, as evidenced in these excerpts:

> Yes, in a way because now I know that after grade 12, I will spend like 4 or 5 years at the university to study Computer Science. The age difference has something to do with my change because I was in grade 7 then and now, I thought about my family and everyone around me (Participant 22).

> Yes, that career choice has changed because hmm I figured out that not many people have arts in their homes and I decided that, that job does not have enough value for me so that is why I left that career (Participant 23).

> My age has an influence because like what I just said in the last question, I left being an Artist because as I was growing older, I figured out that the value of being an Artist is not much and I want that job that has enough value for me to have money and be able to provide for my family (Participant 23).

> Yes, age has an influence on my decision, because I realised that is not about stars that we see at night but now about what you can do to make a living for yourself. The reality of life now dawns on me. You just think about the career that you choose when you were younger, the process is now longer, you can't take that path and get stuck in the past but rather stick to what you love and focus on the present (Participant 20).

It is obvious from the interview excerpts above that participants' age played a significant role in their career decision-making process. Being able to identify changes in life is a sign of good maturity as demonstrated by most of the participants in this study, who has the ability to focus on the present situation and able to make brilliant turnaround in their career decision-making processes. Consequently, participants were able to discern between what is real and fiction as they grow older and were able to make decisions that would favour their future and that of their family.

An adolescent's age has an influence on deciding on a career path to follow after secondary school. As is evident from the following excerpts:

> By living in the present and face reality. I felt life is no longer about stars and moons for me, I have to think of something that I love and that I will be able to make a career out of it (Participant 20).

> Of course, it did change because there are other options and I have to think about my life because I am the eldest child and older sister, I need to think about my life because if I fail my siblings will be devastated (Participant 21).

> It's like when I was young, I was playing around but now that I am turning 18, things changed and I don't feel like playing anymore, I just feel like working and doing the right thing, being social active with other people (Participant 22).

> There is a chance, as much as I love it now and I will get old, I think I will still change because of age; you can't fix cars your whole life, as you grow older your strength will reduce. You should probably do something that has to do with business marketing after that because you wanna start your own spare and hire people to do the job that you were doing before. So, you have to have the skill after to manage your own business (Participant 20).

> Yes, it has changed, like being at age 10 and wanting to be a therapist and when I grew up, I was thinking that what if I do something else because it's like comforting people when you are a therapist but being a programmer, you make Apps and while you sit at home, it's like a home vacation, you sit at home with your family and you are working at the same time. So, with my age now I am able to think better (Participant 22).

However, the learners who participated in this study were resourceful enough as they grew older to review their original choices and decided that their original choices of careers were unrealistic and had to be changed. The researcher argues that, currently, learners in township schools have not been given any assistance regarding career guidance and counselling and are thus grappling with a number of choices and in certain cases some learners could make an incorrect choice. There are numerous challenges that learners face when they have to make a decision regarding their future careers, below follows a discussion of the various challenges that learners experience.

6.6 Challenges Faced by Learners in Their Career Decision-Making Process

This study also sought to explore the challenges experienced by learners in career decision making in Secondary Schools. The results from interviews revealed that many challenges were encountered when learners had to choose a career as it was not a simple task. The themes reported on challenges faced by grade 12 learners in their career decision making process include; family related challenges, school related challenges and community related challenges, which are discussed below.



Figure 12: *Themes and sub-themes on challenges faced by Grade 12 learners in their career decision making process*

Source: Primary data (2022)

6.6.1 Theme 1: Family related challenges

This section presents the information gathered from participants during the interviews concerning challenges that learners faced in their family during career decision-making process. The sub-themes which emerged from family related challenges include low family socio-economic status, sibling delinquency and poor access to internet/connectivity in homes, which are discussed as follows:

6.6.1.1 Low family socio-economic status

In many cases, finance played a major role in a learner's choice of career; this was as a result of the learners' background. Considering that the majority of the learners in this study came from a lower socio-economic background, families were not in a position to support their

children's career choices because of the financial commitment that will be required from them. Hence, the majority of the participants revealed their fear concerning the financial implication in pursuing their careers. Fifteen participants state categorically that despite not knowing where the funds to attend university will materialise, they are confident that they will attend university in the coming year, the participants reported as follows:

> I have no idea on where I'm I going to get my fund for my University but I am confident that either way I am going to University next year be it a loan or be it a scholarship or bursary (participant 2).

> It's a big factor because we just think it kind of put a limit on your dream because you can just go and dream about going out there when I don't even have parent who are capable enough. What if I go out there and I fail, it very scary, it limits my career choices and what I want to do and gives me a lot of different thought sometimes (Participant 3).

It is apparent that these participants are not prepared to consider not going to university and will try their best to obtain the funding. The tenacity is admirable as participants are not ready to give up hope in spite of their financial background. Because finance is a major inhibitor for learners to pursue their desired careers, in certain instances, learners may be precluded from pursuing their chosen careers.

What do these children from disadvantaged backgrounds do when they are aware of the financial situation at home? They have decided upon a career and finance is a stumbling block. In many circumstances, learners' choices are restricted and they might have to relinquish the idea of attending university and take up low-paying employment to assist their parents financially.

Family financial background definitely impact learners' career choices and leaves them wondering about their future as participant indicated. In another school, participants reflected on the current situation in the world, which has made several companies to close down, as this could impact financial assistance that is rendered by companies and businesses inform of bursaries and scholarships. This situation has made some of the participants to wonder if they would ever achieve the ambition to follow their chosen careers. Finance or the lack thereof, may require learners to settle for a second choice, this is evident in the following extract:

> So, it's really problematic and my dad is a mechanic, so I'm really like wondering will I be able to finish school and become the person that I wanna be, I feel like there are so many opportunities but there are lots of

> companies closing down due to Covid-19 and it's like there is no way to turn really and I started to doubt now that will I ever be a Bio- Medical Scientist. I have two options is either I become a Bio-Medical Scientist or a Diagnostic Radiographer; I think with the second option I can manage if there is no bursary (Participant 6).

It is evident that learner's ambition to pursue a specific career may be truncated as a result of insufficient funds at home. Many learners are forced to leave school after Grade 12 and find employment to help the family. However, once they have accumulated sufficient funds, then they may be able to pursue their choice of career as is the situation with Participant 8:

> We do not have funds at home for me to study at the university. I think I should get a job and save up some money for me to pay for my study. Like I said fund won't allow me to go to law school but then maybe there is a way for me to get help and get to law school. I am thinking I can study part time and work for me to be able to pay for my school (Participant 8).

Since the area in which this study was conducted comprises predominantly disadvantaged families, some of whom live below the bread-line. Although many learners have decided upon a career when they reach Grade 12, it is not always possible for them to follow their chosen paths. In the majority of instances, family finance is the obstacle, many parents are unemployed and those that are employed may have employment that does not pay well. Consequently, these parents are not in a situation to save funds for their children's further education and in certain circumstances are unable to put food on the table. It is most distressing for learners who are high achievers, but are unable to pursue further education.

However, two participants (P11 and P17) are of the opinion that their parents have saved for their further education. They are confident that their parents will take the responsibility of paying their university fees. Participants stated that their parents are thrifty and appears to be quite confident that they have saved for their studies. This is highlighted in the following excerpt:

> I think my parents had some money saved up for me to go to the university, my father told me about it when he went to sign for it, where they can be deducting money from his salary every month. No, I think my parents are going to pay for my study. They are very conserving in terms of money, my father told me that I should proceed with my study and they will work around that, I think they have some money saved up for my education (Participant 11).

It is interesting to note that despite living in a disadvantaged area, these parents had they saved for their child's university education. Some participants had alternatives if they were unable to be awarded a bursary, they can get financial support from their family member or siblings. In certain circumstances, siblings who had the capacity rise to the occasion and take the burden

off the parents and shoulder the responsibility of paying for younger siblings' education as is the illustration in the following excerpt:

> No, my two brothers promised to help pay for me in case I don't get a bursary, they said though I should not rely on what they are saying but rather work hard to get a bursary but if I don't get one, they will assist me. That makes me feel so special and happy (Participant 18).

From the result above, it is common for older siblings to take the responsibility away from their parents and help their younger siblings. This is very common in the African, Asian and Indian communities. It is perceived as repaying their parents for the sacrifices that they made by educating them. Sibling delinquency is discussed next.

6.6.1.2 Sibling delinquency

Sibling delinquency is a type of criminal behaviour perpetrated by a juvenile sibling. Sibling delinquency refers to behaviour by a brother or sister that violates societal legal or moral norms; it usually refers to behaviours that would be considered illegal if undertaken by an adult (Huijsmans, et al., 2019). In a family where there is a delinquent sibling, this may have a negative or positive influence on the other siblings, for example depending on the family values, a sibling may object to their siblings' delinquency. On the other hand, the younger sibling may admire the delinquent sibling's behaviour and attempt to model their behaviour as revealed by two participants (P8 and P10). In the case of the sibling in the following excerpt, the participant opposed to the brother's delinquency. Thus, from the following excerpt, it is evident that not all delinquent siblings have a negative effect on the other siblings.

> My elder brother is a gangster, so, and he's also doing a lot of wrong stuffs, is not that I want him punished because he is my brother but he must be punished for all his wrong doing in a way. When I told him that I want to study law he said is good that I will be a good lawyer for him in case he has to go to prison, then I can defend him (Participant 8).

From the above quotation it was noted that although, participant 8 was aware that the brother was involved in criminal activities, the participant would not like to see the brother convicted. Siblings may have a negative influence on one another, because family values come into play yet again, if children are taught the correct values that are acceptable in society, they would most probably reject behaviours that is questionable. Below follows a discussion on perceived inability to obtain Government bursaries.

6.6.1.3 Perceived inability to obtain Government bursaries

When learners make decisions on the career path, it is imperative that they take into consideration the financial situation of their parents. Eighteen of the twenty-three participants were relying on bursaries. However, they failed to take cognisance of the number of applicants who apply for bursaries. Bursaries are awarded to the highest achievers and unless they are exceptionally high achievers, they may be disappointed.

> I do not think my family will be able to sustain my schooling for my whole university fees, even if they do it might be a lot of expense on them and I'm hoping for a bursary, if it happens that I do not do well, my family is not that buoyant, where there is money involved feelings changed and you don't have a voice then. That is why I am actually putting in the work to achieve my aim (Participant 3).

Just like other participants who were expecting bursaries, respondent 3 was also in need. These participants are aware that their parents will not be able to afford the fees and they are hoping to get support. However, majority of them realised that if their results are not good, there may not be any bursary or Government support.

National Student Financial Aid Scheme (NSFAS) provides loans to students who intend studying at a Higher Education Institution. However, the loan has to be repaid once the student has qualified and is employed, it is not a bursary. Many students, who were granted the loan, abused it and on qualification, and being employed, omit to repay the loans. Participant 14had intention of applying for the government loan: "*I will get NSFAS to pay for my study; I am not worried about my fees because my brother also received bursaries*". Participant 7 is also relying on the NSFAS Loan as mentioned in the interview:

> I have been told that at the University you can apply for NASFAS and it all depends on your grades and individual whether the person can push or not. I am satisfied with the way I am performing with my marks now because at the beginning of the year, you need to set target that was why I said in term one I will like to have two distinctions and I got them, by telling yourself what you want doesn't me you just get it but you have to work for it (Participant 7).

Learners appeared to be confusing the words bursary and loan as is indicated from these discussions. As explained above NSFAS is a loan that the Department of Education gives to students and bursaries are offered by various altruistic and benevolent societies as well as the universities, it is not as easy as these learners think it is to get a NSFAS Loan or a bursary. Like the other participants, participants 12, 17 and 16 also believe that they can get a bursary;

however, some of these participants have contingency plan if they do not get a bursary. This is evident in the interview discussion of 3 participants:

> Yes, seeing my family struggling with finance makes me choose a career that can makes me to be financially stable and provide for my family. I intend to apply for bursaries for my university study but in case it didn't falls through I have some money that was saved for me to go to university by my mother (Participant 12).

> My aim was that for my University fees, I'm not going to pay myself; I will work hard and make sure that I get a bursary that will finance my education **(**Participant 17).

> I am looking forward to apply for bursaries so that it can pay for my fees and I am hoping that I will get a bursary because I have no other plans aside from me getting a bursary to study. It cost a lot of money to study medicine when I researched about it and I am working extra hard for me to get the bursary because my family will not be able to afford my school fees (Participant 16).

Majority of the participants are dependent upon government funding to further their education. However, it is imperative when choosing a career that an individual is passionate as this will help them to succeed. If a career is chosen for the wrong reason, at a later stage, the individual might encounter problems with the ill-chosen career. In another school, a participant on the other hand has different concerns regarding studies at a Higher Education Institution and getting financial aid as pointed out below:

> Although at some point it does bother me because it might happen that things don't go my way, as we can see earlier this year there are shootings in the universities that students are protesting because they do not get financial aid and it might get worse next year when I have to continue my studies and that calls for concern that, what if things do not go my way and I am scared to think about it now (Participant 10).

> Financial reason has never had a part to play in my choice of career because firstly I understand that there are a lot of mechanisms to use out there for me to get into university; there are bursaries and student loan and all of that. Also, I didn't choose this for money because I am passionate about teaching Maths and helping the society, so being that as it may, so no finances for my study or money that I will make had an influence in my decision, I just want to follow my passion (Participant 13).

Universities have become unsafe as students indicated that they were entitled to financial aid and if it is not forthcoming and if fees are outstanding, they expect the debt to be written off. If they did not get their way, they vandalise the university buildings and become violent, making it difficult for those students who are serious about acquiring a qualification. Lecture halls are vandalised and set alight and these students even have the audacity to set libraries alight. As a result of this deviant behaviour Grade 12 learners who had made up their minds to pursue

further study are discouraged and afraid of the situation at many universities. Access to internet connectivity in homes is discussed next.

6.6.1.4 Poor Access to Internet/Low connectivity in homes

The internet has become a necessity in homes as technology has taken over the world. The internet connection enables secondary school learners' access to information required for assignments and careers. As a result of Technology, a vast choice of educational resources may be accessed which could support self-learning and the development of new skills. Fifteen participants mentioned poor internet connectivity in their homes and the absence of it thereof. However, with the advent of COVID-19 and schools are having to present lessons online. Participants point out that not having access to the internet is a major challenge. Considering that many learners do not have access to the internet in their homes because of financial restraints, it would be beneficial to learners if they had access at school. This is evident in the following extract:

> I will say in terms of research too, I think we need the internet for us to know what is there. I will say connection or data because I had to log into the internet to check the possible qualifications for one to become a teacher (Participant 13**).**

From the result above, with technology playing such an important role in education currently, it is imperative that learners have access to the internet. Irrefutably, a family that has a good education as well as social personal history could inspire learners' development and cognitive skills by providing the necessary access to technology. Since COVID-19 has wreaked havoc with the education of our children and there is a move to online teaching and learning. Consequently, the onus is upon parents to ensure that their children have access to the internet. When one considers the current economic situation in our country, it leaves much to be desired. The majority of parents in the areas in which this study was conducted are in no position to supply the required internet. The theme on school related challenges is discussed next.

6.6.2 Theme 2: School related challenges

Participants in this study faced quite a number of challenges that were school related as revealed by the findings. The challenges that are school related included inadequate career guidance and counselling in schools, a lack of career information services, peer deterrents, subject combinations that limit career choices, inadequate knowledge of careers, mismatch of

personality and career interest, perceived difficulty of certain careers, and inadequate knowledge of subject choices, which are discussed below:

6.6.2.1 Inadequate career guidance and counselling in schools

It is essential that learners are given access to career guidance and counselling as well as career information. The interviews conducted with the participants revealed that many learners had not decided upon a career when they reach Grade 12, and have no guidance or information regarding the available career choices. As a result, some learners followed their friends and make the wrong choices. It was especially necessary for those learners who have no knowledge about the various career paths that they may follow to have the requisite guidance. All the twenty-three participants mentioned that they do not know what career guidance is all about.

In the 80s and 90s, a career guidance/counsellor were appointed to each school (Daniels, 2013). This necessary position was then discontinued and learners had no individual whom they could approach for assistance with choosing a career. Especially in an era where learners have far more career options than before. This is confirmed by the participants who conducted all the necessary research with the purpose of gathering all the information required to pursue their chosen career:

> No. I did not receive any career counselling. It's not available at the school and I've never heard of it. If it were available, I could have tried it out and it could have probably been of great help. I don't have an idea what it's all about, maybe they could have guide me towards linking all my subjects to a career (Participant 2).
>
> No**,** I've never received any career counselling. I've always known what I wanted to study. I kind of did the research on my own with the help of my friend but I did most of the work myself (participant 3).

These findings indicate lack of career guidance and counselling at one school. The situation is found at the majority of schools, as participants at other schools' state quite categorically that they had not received any career counselling. These participants actually pointed out the benefits of having a career guidance counsellor and state how it could have assisted them with their choice of careers.

> I didn't receive any career counselling at all but I think it would have been nice if it were available because it would have helped to boost my confidence while choosing my career and be able to make a more informed decision. It would have made making a career decision easier. I could have been able to get orientation about ability, capability and career decision on something that matches my personality towards a career, because there might be careers out there that I am not aware of but a career counsellor might have said your personality from what I've seen or from what you have said will match this career why not check it out and tell me what you think about it (Participant 23).

> I've never received any career counselling and I've never attended any career expo. Yes, I think it could have helped a great deal because there will be someone to talk to about career and there could have been proper guidance in terms of the choices and options that I have (Participant 6).

The above results imply that the presence of a career counsellor could have made a difference in these participants' lives regarding their career choices. These participants believe that apart from a career counsellor assisting them with a choice of career, they point out that the counsellor could have assisted them with identifying careers based on their personality and suggested that they conduct research into the suggested careers. It is very disturbing to note that these learners have never had any career counselling, nor attended any career expos. These participants see the value of career counselling and the fact that they could have been given the correct guidance in the choice of careers.

All the participants echoed one another that there was no career counselling at their schools. However, some of the participants were able to receive information, which assisted them in their choice of career. Although, they reiterate that it would have been helpful to have a professional to help, to meet face to face as is evident from the following excerpts from the interviews:

> No. I didn't. Isn't it like somebody questioning you about your ability and your interest? There was nothing like that. I did an online questionnaire about career and it did help me with my decision because sometimes you get some information and you didn't know about your stuff. I will like to have a career counselling with a person and not an online one because I sometimes doubt myself and 80% of me says yes and 20% says no, so I would appreciate it if there is someone at the school, I could talk to about my career decision (Participant 4).

> The teaching assistant for Life orientation talked to us about career. We were able to ask questions, though it was in the classroom and not one on one, so everybody in class on that day participated so I asked her what she was doing and she said she's an IT specialist and then I asked her more questions and she showed me what I can do at the university and I said this one seems interesting and she said she will guide me on how to apply and what to look at and how to find specific bursary and she also did that with other learners as well. This process assisted me with what I need and I have applied to study at the university (Participant 7).

The majority of these learners are only 17 or 18 years old and are not sure whether they have made the correct decision and would welcome the opportunity to discuss their ideas and thoughts about a choice that they would like to make. The participants pointed out that it would be beneficial to communicate with a counsellor in person than online.

According to some of the participants, the majority of learners did not have any notion what they want to do in the future or where they should focus their efforts regarding a career choice. Career counselling would guide learners to choose a career that would allow them to pursue their heart's aspirations and fulfil their life's purpose. Given the economic and social backgrounds of the learners in this study, it was more difficult for them to evaluate career counselling on a personal level than learners from wealthier communities. This is indicated in the following excerpt:

> No. I received no career counselling. It could have helped certain learners if there is anything like that; it's very rare to find learners who knows what they are doing, some learners are double minded they say let me do this or let me do that, so career counselling can help learners who are struggling with the career that they want to do but with certain learners they really know what they want to do (Participant 9).

> I did not receive any career counselling and I had no knowledge of career counselling. If this had been there earlier, it would have been helpful if someone was there to talk to about career. There are some of my peers who are saying next year I am going to be doing tourism, History and Geography at the same time they want to be a doctor, it is complicated. They don't really know, so if they had the privilege of a career counselling they would have known and be better (Participant 10).

From the above excerpts it became clear that some of these learners needed professional guidance and help in order to make acceptable career decisions. When learners reach Grade 10, they are required to choose their subjects in which they would be instructed till Grade 12. If they are not guided to choose the correct subjects that would enable them to choose a good career, they choose subjects that would limit their career choices, and consequently, they would have very few career choices. As early as Grade 10, it is incumbent upon teachers in the absence of a Career Guidance Counsellor to assist learners to choose subjects in Grade 10 depending on their Grade 9 results.

The lack of professional career counselling and support for learners in poor communities has led to learners receiving career advice from "well-meaning" persons who give advice based on their personal experiences without taking into account the learner's interests and abilities. Nonetheless, some of these learners receive guidance that aids in the development of their unique skills and interests. Well-meaning individuals think that they are assisting; however, they have no qualifications on which to draw. The following extracts demonstrate this:

> Professional no, only from my sister, it was very much like conversation but very educational because she showed me other careers that are related to the subjects that I am doing besides engineering, nursing and the other normal ones. Careers that I didn't even think of, which made me to think out of the box then she advised me to have a second and third choice in case many people choose the same course and the institutions are full then I can change into my second choice for that year while I wait for space in Radiology. If there had been

someone like a career counsellor to talk to at school it would have been different because I would have been able to know earlier and prepare myself for the career. It would have reduced the level of my struggling (Participant 12).

No. I'm not sure if Life Orientation teacher do serve the purpose of a career counsellor, if they do then it will be that I did receive a career counselling because Life Orientation teachers that I had in the past have been there. I wouldn't say a one-on-one session kind of thing but the class in its entirety, the teacher will give us advice, question us about what we want to do and give us advice. It was not an issue of trying to impose ideas, it was an issue of trying to talk us through and clarifying things about what we can do and what is out there for us to pursue (Participant 13).

No, except for my Life Orientation teacher at Grade 10 when we wanted to choose subjects. It would have been nice if there was someone to talk to about career (Participant 14).

It was apparent that the participants Life Orientation teachers had shared advice and clarified issues, without trying to impose ideas but at no point were there individual discussions. However, it was clear that all learners are not able to voice their opinions, nor are they able to ask for assistance in the presence of the class. If it were possible to talk to the teacher individually without being humiliated in front of the class, as most learners would not have the courage to express themselves in the presence other learners.

It is very difficult for learners not to have access to a career counsellor as this could guide the learners in their choice of a suitable career. In participants' opinion, if there was a person knowledgeable about careers, it would have enabled them to enquire about their chosen career. Participants pointed out that having a career counsellor at school would be beneficial to the learners, a professional counsellor who would be able to advice and guide learners as well as inform them about the various careers that they could pursue, based on their subject choices. Having the requisite information about the various career choices, would enable learners to make cognisant choices, regarding their careers. This is evident in the extracts below:

No, I didn't. It would have made a difference if there was a career counsellor, I could have asked questions and be more informed about this career that I have chosen. Sometimes it feels like I only know the fun part but have no idea about the hardship and challenges in the profession. It would have been good to get someone to ask about the positive and the negative aspect of the career if any (Participant 15).

It would have been helpful and useful if there were any professional counsellor at the school which learners could talk to, I would have gotten more information from someone who is professional I might even have more information regarding different careers that relate to the stream that I am doing before making my career decision. It would have been useful for other learners too, for them to make an informed decision regarding their career choices (Participant 16).

> It would have helped definitely if there were someone in the school like a professional person to talk to because some learners do not have access to the internet, so they wouldn't be able to get necessary information about their career choice. Having someone like that would help a lot of learners in choosing their career and working extra hard on their school work to know where to focus on (Participant 17).

> No, I did not receive any career counselling while making my career decision. If there is someone like that at the school that learners can walk up to, to discuss their career, their strength and weaknesses would have made a lot of differences because learners will not struggle to decide on which career to choose based on the stream that they are doing at school (Participant 18).

From the results above, what is so remarkable is that the participants were convinced that a professional counsellor would be of assistance. Participants look at it from a different angle, where learners who do not have access to the internet, could benefit from a Counsellor. They could approach a Counsellor and broach the subject about their career choice and the additional information required, pertaining to the said career.

What is very disappointing is that all the participants who responded to this question had not received any career counselling, because there were just no career counsellors in the schools, which begs the question "Why are there no career counsellors in the schools?" All the learners who had participated in this study alleged that their schools did not have career counsellors consequently; learners had no guidance and no choice but to make their own decisions. The learners, had no access to anyone who could assist them in making the correct career choice, however, they are convinced that had there been a counsellor, learners would be able to approach the counsellor for guidance and information. The participants believe that if there had been a career counsellor, many learners would not experience problems with choosing a career.

Learners would choose a career based on the Counsellors advice and information

The presence of career counsellors in schools cannot be overemphasised, especially in schools in disadvantaged areas. Many of the learners who live in these areas come from dysfunctional homes, where there is no support from parents. In addition, some parents are unable to pay for their children to pursue further study as they are single parents. There are diverse barriers in these areas that inhibit further study. Therefore, these learners need the assistance and advice of a career counsellor to discuss the route that they can take to choose a career. The importance of career information is an essential aspect often overlooked; the next sub theme is career information service is discussed next.

6.6.2.2 Lack of Career information services

It is incumbent upon schools to provide career information service. This service provides learners with information on the various careers that they may pursue post Grade 12 depending on the grades and the stream in which they are since Grade 10. The participant interviews revealed that because of the absence of a career information service, learners were unable to make a sound career decision. Those who are able to, conduct research into the various careers available made up their mind on what career to choose, as many of the participants stated.

> I didn't have much information on the career that I chose and I didn't have any role model to look up to that okay this is someone I can ask questions when I have a problem. So, I made research and I found that I don't have to be in a field where I deal with blood so I chose to go for internal medicine **(**Participant 6**).**

> But there is a website I got that have something like that, I answered questions about my ability, my interest, my weaknesses such stuffs and they gave me result on some careers that I can choose from and the reason was about competence, it stated that I'm interested in computer stuff (Participant 4).

> I just did research by myself to know what the subjects that I need are and how I must perform for me to be accepted into the programme (Participant 17).

The above excerpts revealed how some of the participants displayed resourcefulness, by going onto a website that helped them to identify their strengths and directed them to careers that they can choose from. However, the majority of the learners are not able to search using technology. If the school provide the service, learners would be able to access the information easily. Eighteen of the twenty-three participants explained that they had limited information on their career of choice. It is essential that schools provide this career information services, specifically to learners in disadvantaged areas. Learners who are capable are able to possibly Google and obtain the necessary information on the variety of careers available. At times, learners have identified a specific career that they are interested in based on career information received and that makes it easier for them to make a decision on a career path to follow.

The next sub-theme deals specifically with peer deterrents, which is significant in learners' lives.

6.6.2.3 Peer deterrents

Peer deterrents are actions or behaviours taken by peers to discourage, prohibit, or inhibit a specific activity (Double, 2020). Peers may act as a deterrent from unsavoury behaviour, in several situations; peers may be responsible for encouraging negative behaviour. Five participants (P5, P7, P9, P17 and P22) revealed that it takes a strong individual to reject negative influence from peers, as pointed out by participant 7 below:

> I have lost many friends along the way because of what they decided to do in life. Most of my friends are smoking drugs, I don't smoke, and I don't drink. So, I decided to exclude myself from having many friends, so I can't say they have they've made me see the bigger picture and what choices we have. They made me realise how much poverty is out there, that is why I surrounded myself with older people so that I can get the glimpse of what is out there and learn from them (Participant 7).

This excerpt implies that participants see wrong behaviour from their peers as a challenge to their career decision-making process, although, with participants' correct value and with these values, it is obvious that they would make the right choices in life without allowing the challenges to deter their moral choices.

Participant 9 has the desire to become a pastor, however, peers present different challenges in this decision as they point out the negative aspect of becoming a pastor, more specifically the fact that this would not provide enough income as a pastor. Participant 9 points out that money does not last forever, but good morals last for a life time:

> Honestly with my friends and peers, well I don't want to classify them as friends because I don't actually have one but as my peers they gave a negative response because some people, that's why they say don't tell people your dream because they will start bringing you down telling you why don't you be something else, you are good at this and that, why don't you go for something that makes you money because being a pastor doesn't give you money and I say to myself why is everything is always about money because if you fix your mind on something, money ends, money comes to an end, morals don't, teachings don't. With my friends and peers most of them have been negative influence and I feel let down because sometimes I know there are definitely going to be barriers that are going to stop me, and I am just going to break through. No one can tell me what to do that will stop me from my path (Participant 9).

It is apparent from the above excerpt that some participants would not be easily swayed from their decision by not allowing a negative influence to deter them from what they have decided would be their career path.

Career decision making is a major task for learners, and they may encounter many challenges, below follows a discussion on challenges of how subject combinations limit learners in career decision making.

6.6.2.4 Inappropriate Subject combinations limiting Career Choices

Inappropriate subject combinations are subjects chosen by learners that are unlikely to lead to major careers by the end of grade 12. In grade 10 learners are expected to choose their subjects to pursue until Grade 12, when they write their final High school examination. Their subjects that they chose to study from Grade 10, then entitles them to enter Higher Education. Some learners are unable to pursue their choice of career as they do not have the requisite subject combinations. Learners are actually coerced to take subject combinations because of their poor Grade 9 results, which seals their fate post Grade 12 when having to choose career.

In addition, five participants (P4, P10, P15, P18, and P23) report that many learners have grandiose ideas and unfortunately do not have the subject combinations to pursue their chosen career. It is not always easy to decide on a career and just pursue it as participants discovered. It is a significant challenge since subject combinations determine a learner's fate; in other words, if learners choose the wrong subjects, they may be prevented from attaining their post-secondary goals. According to one of the participants reports: *"At first the challenge that I faced was that we learners we might not be knowledgeable about careers and which subjects to choose that can lead you to your career choice" (Participant 10).*

It may be deduced that subject combinations present a significant barrier to learners; therefore, appropriate knowledge of subjects and the careers that they can lead to is critical. Learners require proper information and career counselling beginning in grade 9 in order to be able to select the appropriate subjects in grade 10 that would take them to their desired vocation.

Inadequate knowledge on careers is discussed next.

6.6.2.5 Inadequate knowledge on careers

When learners get to Grade 12, they have no idea of what career they would wish to pursue post-secondary school education. The results indicated that the participants had inadequate knowledge on careers. However, if these learners were able to receive adequate knowledge pertaining to careers that they could pursue with the subject combinations that they had, it would have made their career choices easier. The more affluent schools have a career day, where the various universities and colleges are invited to set up stalls where learners are encouraged to approach individuals to seek information to diverse careers that might be of interest to

individual learners. However, the findings of this study revealed that this is unheard of in the schools where this research was conducted. As a result, during the interviews fourteen of the twenty-three participants' (P1, P2, P3, P4, P6, P7, P10, P11, P12, P14, P15, P18, P21, P22) explained that learners are unaware of the diverse careers available in this day and age. If the learners are exposed to such information, they will have a better chance of making the correct choice of career. Participants encountered challenges when they have to decide on their career choice, as inadequate knowledge of careers inhibit their choices, as mentioned in one interview:

> First, I didn't know what IT is, I didn't know about computer science, I didn't know how it will be like working with computer, I was having many options and I didn't know which one to choose from and thinking again when I apply to a certain university, they won't take me because I didn't qualify for it and I was stressing about that. Another challenge that I faced was that, it was really stressing me that if I do this course, is it going to give me a job or is it going to employ me, those are kind of questions I was having, it was really challenging and it was difficult to answer them (Participant 4**).**

From the results, participants encountered challenges and faced a number of predicaments in choosing a career. Not having sufficient information, depending on individuals for information and not getting the correct information is what Participants experienced. It is always wise to gather sufficient information concerning a career path before making a final decision. In Participant 9's opinion, individuals are easily swayed by social media and what people have to say, but frowns on this as people are drawn into this web and identify with various characters because of a lack of adequate knowledge on the right career to pursue. In addition, they vacillate and do not hold fast to their original choice:

> The one thing is people because people always talk, talk is cheap, people always tell you that do this do that. You are afraid to come out or the social media, they see what people are doing and posting on social media and they feel like wow I want to do that. The majority of people are always saying I want to be like this person and that take away what they actually want to do and they are like suckers, they suck here and there without taking a position that I will like to stick to this career and get it done (Participant 9).

From the excerpt above information on careers is a challenge because as Participants point out, learners are not familiar with different careers with which they have to choose. It must be emphasised that all information pertaining to Modules both compulsory and optional are available on the university's sites. It may be inferred from the above excerpts, that it is evident that these Participants were experiencing problems with their choices of careers, based on their lack of information pertaining to their career choices. Because of the limited knowledge and information regarding career choices, they did not check the University sites and were really at

a loss. Once again, to reiterate, learners have no career guidance at these schools. Perceived difficulty of certain careers is discussed next.

6.6.2.6 Perceived difficulty of certain careers

In the previous Century, choices were very limited for Black learners, the two most popular choices were teaching and nursing and the police force (Dodge & Welderufael, 2014). Since the dawn of Democracy in South Africa, doors were opened to all races and learners began pursuing diverse careers. It is incumbent upon schools in the underprivileged areas to provide the necessary information regarding the various career paths available from which learners may choose, ensuring that they are provided with in-depth, adequate information regarding these courses. The more resourceful learners had access to the internet and were able to obtain information relevant to the various career options available or offered at Higher Education the more empowered they will be to make suitable career decisions.

Not knowing what a career to choose from based on their subject combinations, presented a number of challenges for Participants, such as the many option, and the job opportunities among others. Two participants (P5, and P6) were concerned about whether they would be able to cope with their chosen career. The study revealed that participants were anxious about their chosen vocations; they are concerned about the problems that they will face during their course of study and the fact that they have no one to turn to for assistance. The following excerpts indicate this:

> "One of the challenges is that I feel like I am not mentally ready for computer science because I don't know much about it but there is someone who did computer science and it's like a heavy course, so I am thinking will I be able to cope or not" (Participant 5).

> "I didn't have much information on the career that I chose and I didn't have any role model to look up to that okay this is someone I can ask questions when I have a problem" (Participant 6).

The above excerpts confirm that learners perceive difficulty with information about courses, because they lack information. Participants believe that they are not mentally prepared and wonder where they will get information about their chosen careers. If these learners were provided with the correct information and guidance, they would not be encountering these challenges. This point to the fact that these learners do not have the relevant knowledge required to choose a career confidently. The next sub-theme is mismatch of personality and career of interest which is discussed next.

6.6.2.7 Mismatch of personality and career of interest

When it came to selecting a career, an individual had to match their personality with their interests; however, if these two key criteria are ignored, the result can be disastrous. A person may make the wrong career choice, resulting in frustration and career dissatisfaction. At the end of Grade 12, there are a number of learners who have no idea what career path to pursue. Some pursue a career chosen by parents; some choose a career for prestige, while others follow their friends, without giving consideration to a career that is not well matched with the individual's personality type. The findings of this study revealed that personality presents a challenge to participants, as they are concerned about their personality and their chosen careers. Three participants (P7, P11, and P13) mentioned that they are not sure if their personality traits are compatible for their chosen careers.

The following excerpts from learner's interviews identify the dilemma that some learners experience:

> The challenge is my personality and the chosen career, will I be able to talk because I feel like I am shy to talk sometimes, so I was wondering if I will be able to stand in front of people to speak, even though I like arguing (Participant 11**).**

> I will say I had to first understand myself, which is a challenge because sometimes I was sceptical about certain things. In all of these, I am not sure about my chosen career and my personality, I sometimes ask myself if I will be able to manage with my personality, this seems like a big challenge to me. (Participant 13).

What is evident from these learners' comments is that if career counselling were provided for these learners, they would have been guided in the right direction regarding the choice of a career to pursue, a career that would be congruent with their personality types. Participant's personality would have been measured to indicate if there is compatibility with the career that they are contemplating.

Learners experience challenges if they have not decided on a career and specifically, and if they are not confident about their impending results. The challenges encountered by learners in deciding on a career are numerous, especially those learners who have not decided on a career after Grade 12. It becomes a challenge when learners have had no direction, no guidance and when they are unsure whether their results and personality types would enable them to pursue a career regarding careers that would be interesting and satisfying and lucrative. Consequently,

learner's choices are limited and choose the wrong career. Inadequate knowledge of subject choices prior to grade 10 is discussed next.

6.6.2.8 Inadequate Knowledge of Subject Choices Prior to Grade 10

Prior to learners entering Grade 10, learners are required to choose a stream comprising subjects that they will work at up to Grade 12. The findings of this study revealed that learners are not aware of the diverse subject choices that they have, because they have not received any guidance with the choice of subjects that are available to them. In addition, many learners choose the wrong subjects and invariably struggle with the subjects that they have chosen. Eleven participants (P3, P4, P5, P6, P7, P8, P9, P14, P18, P21, P22) stated that the lack of proper direction and guidance on which subjects to choose in Grade 10 made it difficult for them to understand and connect their subject to their future careers. Some learners are actually forced to choose subjects that they do not want to study. In a particular school, participants said that the school has a system where they grade learners according to their Grade 9 results and those learners who did not fare well are forced to take subjects that would not allow them to pursue Higher Education. However, had these learners been given some career counselling, they would have not ended up in this disappointing situation. This is evident from the following excerpt:

> I did not know until Grade 10 when we wanted to choose our subjects (stream) and they did not tell us about different careers (participant 14).

> At first, I was doing Sciences but looking at my marks, it was not that good, I realised that I cannot do Science and pass the way I will want to because I was kind of lazy then I thought let me leave now to choose another stream, then I chose the one that I am doing now which is Economics and tourism (Participant 18).

The above excerpt confirms the discussion above. It is essential that learners have access to Professional career guidance and counselling in order to make the correct subject choice. Numerous learners make the wrong subject choices and continue to Grade 12 and subsequently fail. If they are able to have access to a career counsellor, the advice they would receive, would enable them to make the correct subject choices, which in turn would direct them to a suitable career choice.

Learners expressed frustration with not knowing which subject combination to take in order to pursue their intended vocations, which they described as problematic. When they have to choose

a career, it is critical for them to be able to choose the correct subjects in Grade 10 so that they can match their chosen career decision. Community related challenges as a theme is discussed next

6.6.3 Theme 3: Community related challenges

Some of the challenges that influence learners' career decisions are community related, as revealed by the participants' interviews. These challenges include a perceived inability to obtain government bursaries, perceived unemployment among youths, community deficits and apathy, community deterrents and a lack of role models.

6.6.3.1 Perceived Unemployment among youths

When learners decide upon a career, they should consider the unemployment situation in this country. Seven participants (P4, P7, P10, P14, P19, P21, and P23) revealed that there are numerous university graduates who are friends or family and were unable to secure employment. Participants mentioned that companies have had to close down as Covid-19 has caused companies to close their doors. The youth in South Africa are facing very difficult time as participant 7 indicates:

> It is very hard to get a job in South Africa without a certificate, so unemployment that I see around me influenced me into doing so many for myself. As a person I like to make alternative plan that what happen if I don't pass Matric, I know that I have music and I have trading as well by the side. I watched video on line and met people online that taught me how to trade and I have been using demo account to trade and I am making money from it (Participant 7).

This excerpt shows that with unemployment figures rising exponentially, the youth are faced with major problems when deciding on a career. Participant 7 has something to fall back on as there is music and has learned to trade. In another school, a number of participants revealed that they had chosen IT as a career, and with technology taking over the world, this is a wise choice. However, this choice that is based on the salaries that are earned does not bode well. As other participants mentioned, they had chosen a career that was underpinned by their passion and the ability to secure employment. Two participants revealed the following:

> I don't want to be like my sister in terms of unemployment that is the reason why I want a career that will have more job opportunities. Another thing when I researched the IT jobs, they get high salary and that's one of the things that made me choose the career again. There are fewer jobs in South Africa, so I'm thinking about the future and the technology, how it is growing and I thought that I need to look ahead and think differently. I always say to myself that I don't want to be like those people and that is one of the things that pushed me to work hard (Participant 4).

> So, looking at my community, many people are unemployed and some of them finished university and sitting at home doing nothing, for example may be someone did a mechanical engineering at the university but because of unemployment you can find the person selling at the corner or even at the robot and you think why is that. So, I see my community as a motivation to want to do best in choosing a better career for myself (Participant 14).

Most definitely, with unemployment situation as it is in South Africa, little wonder that educated individuals are forced to make out a living by doing whatever they can do. It is very depressing to see hawkers running to cars trying to sell their wares. Some of the participants are motivated by people from their community to choose a career that will benefit them. Because job opportunities are few and far between, entrepreneurship has become very popular.

6.6.3.2 Community deficit and apathy

Community deficit and apathy is the absence of support and motivation for learners in their community to pursue their intended objectives and desires. In many cases, the community in which these learners reside are predominantly unschooled, ill-informed and apathetic as a result of circumstances. The interviews results revealed that the community are not supportive when learners want to pursue careers which would require a number of years' study. Three participants (P3, P7, and P 16) explained that because most community members have no academic qualifications, they assume that it is their children's duty to find employment and assist with living expenses. Additionally, members of the community see further study as a waste of time and in some cases, children are encouraged to leave school prior to completing Grade 12, especially in the areas in which this study was conducted. To reiterate, this study was conducted in a low-socio economic community where education is not a priority and where people do not have the resources to provide a nutritious meal let alone pay for higher education. As a result, the emphasis is placed on contributing towards the family income rather than pursuing a career.

The excerpt below is evidence of the type of community, in which this study was conducted; it is heartening to observe that a learner would like to transform their life instead of following the norm in his community:

> In my community people are not willing to work, they just want to relax and get money, I want to change that and better my life and another thing is that I don't want to sit at home, I want to be the change that I want to see in my community (Participant 16).

A knowledge of technology has become imperative in this age, because we live in a so called "digital world". Therefore, it is necessary for individuals to adapt to the use of technology to keep abreast with development around the globe. Considering that the majority of the community members are not computer literate, most of them find it difficult to perform technological related activities, as is evident in the following statement:

> Many people in South Africa or where I stay are not computer literate because they don't know how to use the computer most of the time and when a person cries about the phone does this and it became a problem because having to go fix the phone sometimes is costly so we live in a world that is surrounded by technology now and technology is improving constantly (Participant 7).

Despite these being communities that fall into the lower income bracket, most people have cell phones and digital devices; however, they unfortunately are unable to understand when they have problems with the devices. Participants highlight the fact that there are deficits among many people in the community. As a result of this deficit in the community, participants were prompted to choose careers with the intention of helping interested members of the community.

What may be inferred from participants' interviews is that their career choices were influenced by the challenge that people experience in the community in which they live, to be able to assist them. It is admirable that participants recognise the lack of schooling as well as the apathy and lethargy of members of the community in which they reside. The participants consequently decided not to fall into the same category and to change their lives through education and thus equipping themselves to be able to change the situation in their community. Community deterrent is presented next.

6.6.3.3 Community deterrents

The happenings in learners' communities may discourage them from pursuing their passions and interests in terms of a career. Another serious challenge that learners encountered is that the community could be a deterrent regarding the choice of career and it could take several forms. Instead of learners deciding upon a career path that they may be influenced to earn a salary of their own, they may opt for the first employment opportunity that they come across. The idea of earning a salary is more enticing than studying further and obtaining a qualification. At times communities act as a deterrent when learners identify a career that they would like to pursue; two learners mentioned that the unacceptable behaviour of learners in the community actually deterred them

from associating with the badly behaved learners. Instead as a result of delinquent teenagers, these learners decided that they would try to influence the teenagers in the community positively. The following two excerpts bear testimony to this claim:

> This plays a big part in my career decision making, just like how I mentioned how the youth turned out. In the past it was actually way better how everything was going but now when you go outside and you see your community, you will just see things that are wrong, something is missing and whatever is going on right now is not positive, with the kids it's not positive, most of the time it's just negative. Most of the kids when you find them outside and ask them where they are going, they probably tell you I don't know where I am going or I'm going to my friends or I'm going to my girlfriend it's rare to hear them say I'm going to the library to study, I'm going to do business or I'm going to pursue my dream and things like that. I want to change the people's mind set, if you change somebody's action, they might go back to it but if you change their mindset they will think differently forever and be able to do things right for themselves. So, the community gave me positive influence about my decision actually so that I can encourage people in the community (Participant 9).
> There are many things that are wrong that are happening in the community that I live and that has influenced my career decision, like I do feel that there are many things that should be done to fix the imbalances that are occurring in our communities and I do believe that with my choices I might be able to help in correcting the abnormalities (Participant 10).

The above two excerpts are an indication that there are individuals who are deterred by unacceptable behaviour, which prompt them to improve their life situations as well as that of members of their community. This prompts learners to be focused and to make good decisions in terms of their career, and more importantly to improve the conditions in their community. It would be admirable if more teenagers followed their example. A lack of role model is discussed next.

6.6.3.4 Lack of role models

"What do you want to be when you grow up?" this is a question that most children are asked in jest when they are little, but when they are in Grade 12 it becomes a question that they are asked because it pertains to their future. To have plans for a career that an individual anticipates or intends to pursue in the future is significant, however, by the same token it is important to have someone to emulate with regard to their values and behaviour. These individuals are referred to as role models who serve as examples to influence and to help young adults to decide whom they would like to emulate in the future.

Three participants (P6, P7 and P8) mentioned role models in their interviews, but what may be inferred from the interview excerpts, is that learners did not have any role models to emulate because all that they could speak about was a lack of guidance. Participants pointed out that research should be conducted prior to choosing a career however, participant 6 did not know much

about his career choice and that was causing undue stress as well as the fact that there is no role model to emulate nor to guide in the career choice. These participants dilemma concerned the various fields that could be studied when choosing a career. Over and above the diverse branches available in some career; the financial benefits may cause additional stress. Although some careers salaries appear to be very attractive, hence, some people make the grave mistake of choosing a career for the lucrative benefits and consequently are unhappy, as is evident in the following excerpts:

> In South Africa we are faced with many challenges, the unequal distribution of income is a problem to many people. The challenge is that when you choose a career you need to know what it is all about, you can't say that you want to do this not knowing what it is all about. I found this very difficult because under IT, we doing one and the same thing but not exactly the same thing so when I narrowed down to Information systems, it was a bit tricky because is software development, programming and they all make money but in different way then I said to myself that I can do something just for money whereas I don't like the job, I rather do something that I like and still make money, for example, Information system specialist takes home R4m after tax per year then software developer takes around R5,5m after tax per year, I was like there's a difference but the second one is a bit more complicated and I don't like something that will complicate my mind. So, it was a challenge for me to decide on which aspect of IT I need to choose from that I will not lose interest from (Participant 7).

> It's difficult to decide on the courses and you start asking people now and they give you their opinion and you start to challenge yourself about things like is this what I really want. It creates disruption in your mind, for example, if you have decided on what to do and it is time to make the career choice you start to challenge yourself thinking am I capable of doing this, how will I achieve this. I've never thought of choosing another career (Participant 8).

What may be concluded from the above excerpts is that some participants do not really understand much about the various career paths that may be pursued. However, had there been a role model, these participants could have obtained all the information necessary for them to choose their career paths. In addition, learners were faced with considerable indecision because they have not received the correct guidance that they would have received from a role model; they are confused regarding a career choice and question their ability.

From three participants, it is evident that these learners were unable to make a decision regarding their choice of careers. Because there is a lack of role models and individuals who have the knowledge in their communities, it presents a major challenge. However, if there were

Knowledge individuals to guide and support them, they would not experience this dilemma in deciding on a career.

Figure 13 below summarises the main themes and sub-themes that emerged from the analysed learners' interviews showing the relationships between factors in career decision-making, as relate to the research questions.

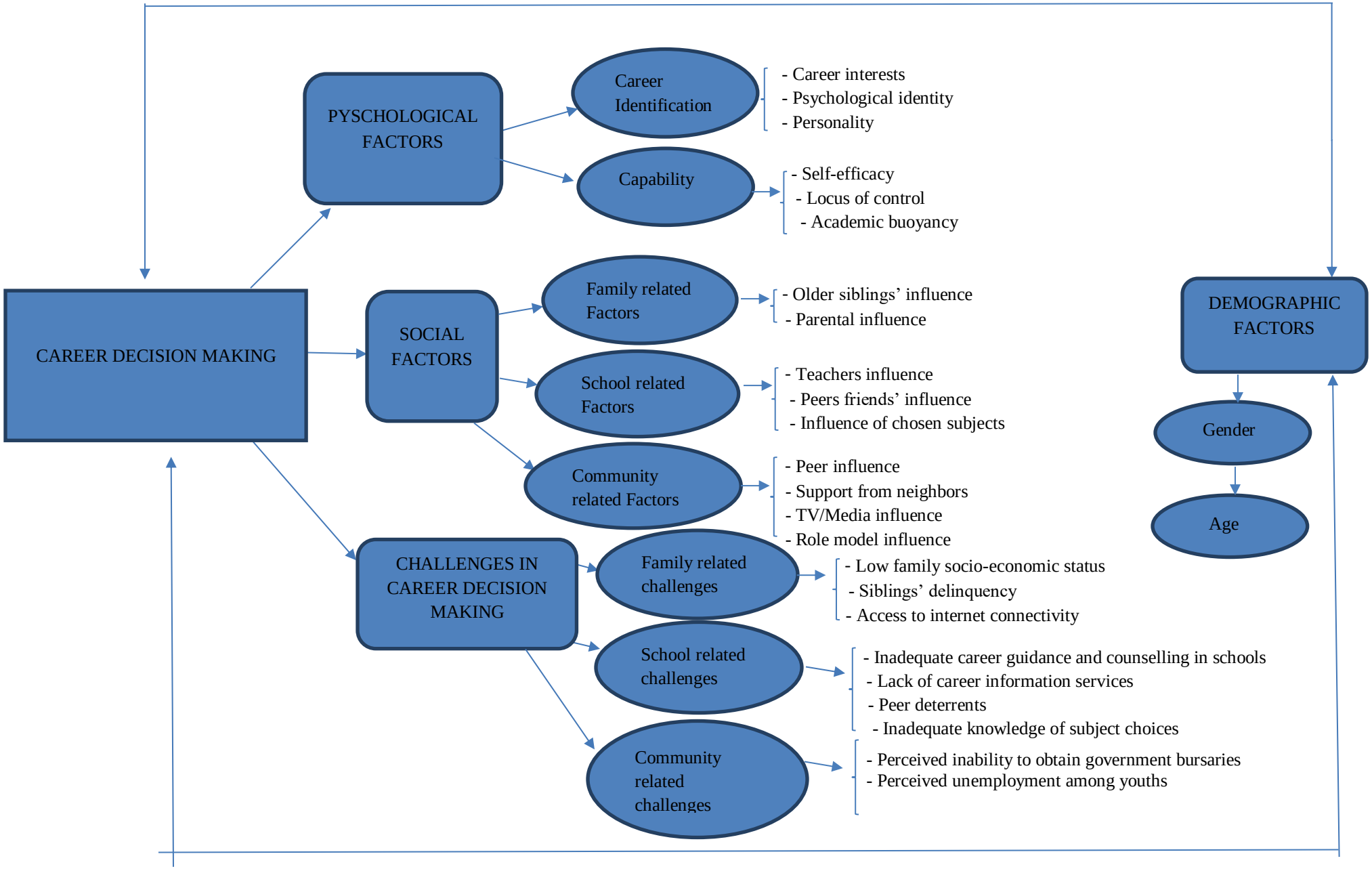

CAREER DECISION MAKING
PYSCHOLOGICAL FACTORS
Career Identification
- Career interests
- Psychological identity
- Personality
Capability
- Self-efficacy
- Locus of control
- Academic buoyancy
SOCIAL FACTORS
Family related Factors
- Older siblings' influence
- Parental influence
School related Factors
- Teachers influence
- Peers friends' influence
- Influence of chosen subjects
Community related Factors
- Peer influence
- Support from neighbors
- TV/Media influence
- Role model influence
CHALLENGES IN CAREER DECISION MAKING
Family related challenges
- Low family socio-economic status
- Siblings' delinquency
- Access to internet connectivity
School related challenges
- Inadequate career guidance and counselling in schools
- Lack of career information services
- Peer deterrents
- Inadequate knowledge of subject choices
Community related challenges
- Perceived inability to obtain government bursaries
- Perceived unemployment among youths
DEMOGRAPHIC FACTORS
Gender
Age

Figure 13: *Synopsis of themes and sub-themes of factors influencing learners' career decision-making*
Source: Primary data (2021).

6.7 Conclusion of the Chapter

This chapter presented the results from the qualitative investigation of this study. Excerpts from the interviews held with learners are presented. The questions asked during each of the interviews generated much interesting data, which highlight the deficiency in the education provided to learners in disadvantaged areas. However, it was interesting to realise how resourceful many of these learners are regarding their career choices and how they arrived at their decisions. The next chapter presents the discussions, conclusion and recommendations to the study.

CHAPTER SEVEN
SUMMARY, DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This chapter presents a summary of the research findings, discussion, conclusion and recommendations that emanate from the findings. First, the chapter presents the overview of the thesis followed by the summary of the study findings, secondly, the discussion of findings were presented. Third, the main conclusions of the research findings in terms of the relationships between psycho-social factors and their influences on career decision-making of grade 12 learners in six selected Secondary Schools were discussed. Fourth, the contributions of the study, education policy and practice recommendations were presented. Lastly, the chapter presents the limitations of the study, suggestions for further research and the concluding remarks.

7.2 Overview of the Thesis

This study examined the psychosocial factors influencing the career decision-making of grade 12 learners in township Secondary Schools in Gauteng, South Africa using a mixed methods approach. Chapter one presented an introduction to the study which comprised the rationale, aim, objectives, hypotheses as well as the research questions for this study. Chapter Two provided the literature review followed by the theoretical framework that underpinned this study in Chapter three. A discussion of the research design and methodology employed in the study could be found in Chapter Four. Chapter five presented the quantitative results of this study and the Structural Equation Model diagram showing the influence of psychological and social factors on career decision making among grade 12 learners. Chapter six presented a discussion of qualitative results. Finally, chapter seven presents the summary of the study findings, conclusions, recommendations, limitations of the study and finally, suggestions for further research.

This study attempted to answer the following research questions:

Research questions

The main research question for this study was:

What is the relationship between psycho-social factors and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East District Gauteng, South Africa?

The following sub-questions assisted in answering the main research question:

(i) What is the relationship between psychological factors (personality types, locus of control, self-efficacy, self-esteem, psychological identity and career interest) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa?

(ii) What is the relationship between social factors (influence of older siblings, parental level of education, parental occupation, family income, peer influence, teachers influence and career information services) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa?

(iii) What is the relationship between Demographic factors (Gender and age) and career decision-making of Grade 12 learners in township Secondary Schools in Ekurhuleni East district, Gauteng, South Africa?

(iv) What are the challenges facing Grade 12 learners in their career decision-making process?

(v) What structural equation modelling can explain the relationship between psychological, social factors and career decision-making?

The summary of the study findings is discussed below.

7.3 Summary of the Study Findings

The summary of the study findings is presented as follows:

7.3.1 Psychological factors and career decision-making of Grade 12 learners

The quantitative findings indicated that the personality types such as extraversion, conscientiousness, agreeableness, and openness to experience significantly influenced best career decision-making of the learners. However, neuroticism personality type among learners led to ineffective career decisions. The qualitative results also indicated that individual personality trait

is a feature that shapes the career decision-making process among learners. Furthermore, the quantitative findings show that learners with internal locus of control exhibit more effective career decision-making than learners with external locus of control. The qualitative results also showed that most learners had external locus of control in that they drew support from the immediate family members, friends and teachers. Some learners had greater internal locus of control and therefore did not rely on family members, peers/friends and teachers to make their career decisions.

The quantitative results revealed that learners with high self-efficacy and self-esteem have a tendency to be more efficient in career decision-making. On the contrary, low self-efficacy and self-esteem among learners evolved to unproductive career choice decision-making. In the same vein, the qualitative findings indicated that learners with positive self-efficacy are confident and are able to make career choices without any assistance. However, learners with low self-efficacy foresee challenges and require assistance in making career decisions. Additionally, the quantitative results revealed that several aspects of career interests such as, enterprising, adventurous, social, artistic, biotic, conventional, expressive, and investigative brought about changes in learners career decision making. However, operational career interest among learners resulted in an ineffective career decision. The qualitative results indicated that different career interests among grade 12 learners had an influence on how they choose their careers. Therefore, one of the important psychological factors influencing career decisions among Grade 12 learners is career interest.

The quantitative findings further revealed that, learners' psychological identity influenced career decision-making by exploring available career opportunity prior to making a career decision. The qualitative results also showed that learners demonstrate the ability to self-awareness as a feature of psychological identity, which is an influence in learners' career decision-making process. The qualitative findings indicated that learners' academic buoyancy influenced their career decision-making as learners are determined to focus on their academic and obtain a better result to better their lives and their family.

The summary of findings on social factors influencing the career decision making of Grade 12 learners is presented next.

7.3.2 Social factors and career decision-making of Grade 12 learners

The quantitative results indicated that social factors such as, peers, teachers, career information services and older siblings influenced career decision making among Grade 12 learners. Furthermore, the quantitative findings revealed that learners whose parents had formal education (university, college, high and primary schools) substantially influenced sound career decision making of their learners. However, learners whose parents had no formal education had no influence on their learners' career decision-making. The qualitative findings also showed that social factors such as family related factors (older siblings, and parents), school related factors (teachers, peers and chosen subject) and community related factors (support from neighbor, TV/media influence, and role models) all have considerable influence on career decision-making among Grade 12 learners in township secondary school.

This study revealed that peers had an influence on secondary school learners' career decisions. Learners frequently provide career advice whether they interact professionally or informally. Friends and peers urge learners to pursue specific careers depending on their ability. The study also indicated that peer guidance on careers plays a key role in learners' career decisions. This study also found that when learners interacted with their friends/peers, they received either emotional or informational influence, which influenced their career decision-making process. The majority of participants in this study attributed their career choices to their siblings. Participants were encouraged by their siblings to seek careers that were similar to those pursued by their siblings.

According to the findings, depending on the parents' backgrounds, both father and mother have an influence on their children's career choices. This study also revealed that parents who want their children to have a decent profession influence them in most of these circumstances; nevertheless, children from underprivileged families are often not given a choice because they are expected to go out and find work to help with family expenses. The study also found that teachers have an influence on learners' career choices. The findings revealed that the majority of learners based their career choices on teacher guidance and by looking up to their favorite teachers in school as role models. Teachers are considered as having a good understanding of the learners' talents and shortcomings, putting them in the greatest position to provide them employment advice.

The qualitative findings showed that learners' career choice decisions are highly influenced by the subjects they choose to study from Grade 10 through Grade 12. According to the qualitative findings, neighbours who showed an interest in the learners' aspirations for the future and encouraged them to concentrate on their studies as the only way out of poverty were a significant source of influence to the learners. From the qualitative findings, it was gathered that most learners got their career inspiration from media and this was considered to be important influencing factors in learners' decision to pursue a particular vocation. In the same way, role models in society can act as guiding lights who model moral behaviour for those around them. The qualitative findings showed that because learners could follow their role model in choosing a vocation, role models have an influence on how they make career choices.

7.3.3 Demographic factors (gender and age) and career decision-making of Grade 12 learners

The quantitative findings indicated that gender has a substantial influence on career decision making among Grade 12 learners because male learners were found to make more effective career decisions than female learners. On the contrary, the qualitative results revealed that choosing a career is a task that must be accomplished by everyone regardless of gender, hence, the qualitative results indicated that gender has no significant influence on career decision making among grade 12 learners. The quantitative results also revealed that age influenced career decision among grade 12 learners. Equally, the qualitative findings showed that age plays a significant role in learners' career decision making process.

7.3.4 Challenges faced by learners in their career decision-making process

The quantitative findings indicated that learners usually face above average challenges in making career decisions, such as, lack of knowledge and information of the career opportunities that match their capabilities and interests. Moreover, lack of information about the world of work, inability to analyze information about self and different careers also form part of the challenges experienced by learners during career decision-making. In addition, lack of motivation, not knowing the step to take to make the right career choices and understanding learners' competencies regarding career choices were also found to be challenges faced by learners during career choice decision-making.

The qualitative findings revealed that family related challenges (low family socio-economic status, siblings delinquency, poor access to internet connectivity in homes), school related challenges (lack of career information services, inadequate career guidance and counselling in schools, peer deterrents, inadequate knowledge on careers, mismatch of personality and career interest, perceived difficulty of certain careers) and community related challenges (perceived inability to obtain government bursaries, perceived unemployment among youths, community deficit and apathy, community deterrent, lack of role models) all influenced career decision-making among Grade 12 learners.

7.3.5 Structural equation modelling explaining the relationship between psychological, social factors and career decision-making

The quantitative findings indicated that psychological factors and social factors are directly linked to career decision-making. From the model, of the psychological factors, career interest had the greatest influence on career decision making among Grade 12 learners. In addition, teachers have more influencing power than self-esteem in learner's career decision-making process. However, all other factors had direct relationship with each other, except between personality traits and older siblings which are different in some aspects. Overall, the results revealed that most of the variables clearly influenced learners career decisions, hence, the variables are suitable for use in structural equation for career decision-making.

7.4 Discussion of Findings

This section presents discussion of findings for the study.

7.4.1 Psychological factors and career decision-making of Grade 12 learners

The study demonstrated that personality influenced the career decision-making of Grade 12 learners in township Secondary Schools. The quantitative findings indicated that the personality types such as extraversion, conscientiousness, agreeableness, and openness to experience significantly influenced career decision-making of the learners. However, the study found a significant indirect relationship between neuroticism personality types and Grade 12 learners, implying that higher levels of neuroticism personality type in a learner are associated with a low capacity to make career decisions among Grade 12 learners. Moreover, the results from qualitative data also agree that, personalities of learners are varied and this influenced them into choosing

different careers. Therefore, having a cheerful disposition is beneficial and being able to communicate is good specifically if the chosen career involves communicating and interaction. This finding agrees with Bandura's (1997) theoretical assertion that individuals look for environments that support their personality types and become involved in actions that exploit their capabilities. In agreement, Edward and Quinter (2012) reported that an individual's inclination to a specific vocation and preference for a profession is determined by their personality, which is an essential aspect in career path. Similarly, this finding is in line with recent research (Morizot, 2014; Li, et al, 2015; Jemini-Gashi and Brxulli, 2017; Harry, 2017; Chilungamo, et al, 2019) that found personality types have an impact on career decision-making among Grade 12 learners. The implication of this is that learners should choose careers that align with their personalities. Hence, there is a need for the school counselors to perform personality tests on Grade 12 learners to assist them in making the appropriate career choice decisions.

The study also revealed that locus of control was a significant factor in career decision making among Grade 12 learners and that those with internal locus of control tendencies were more effective in career decision-making than those who exhibit external locus of control. This finding is consistent with previous studies of Asgari, and Vakili, 2012; Mohsin, 2013; Rambe, Modise, & Chipunza, 2018; Owusu, et al, 2019; Rumalutur & Salim, 2020) who concur that individuals with internal locus of control are more effective in making career decisions than those with an external locus of control. These findings are consistent with Woo et. al., (2017) and Cherry, (2019) who indicated that people who have a stronger internal locus of control are better off, for example, they are more goal-oriented and find better-paying occupations. This research suggests that learners who have a strong internal locus of control are more likely to achieve their career goals and experience job satisfaction.

The quantitative results of the study revealed that most learners had negative or low self-efficacy to pursue their chosen field of study, and they do not have the capabilities to make career decision, hence they depend on external assistance while some learners had stronger internal decision-making mechanisms. The qualitative results also indicate that learners demonstrated their ability to self-reflect on self-image as they were able to identify their weaknesses and strengths before deciding on a career. In agreement, studies by Vertsberger and Gati (2016); Cherry (2017); and Ackermans (2020) all revealed that secondary school learners lack adequate sense of self-efficacy

required to demonstrate perseverance on tasks during career challenges. Similarly, the results also agree with those of Odanga et al., 2015; Ochieng'; 2015; Sachitra & Bandara, 2017) which indicate that self-efficacy enhances human achievement and well-being in a variety of ways. This study's findings seem to suggest that individual efficacy appears to influence career decision-making through influencing the kind of activities they engage in based on their selected environments. Since the learners had an understanding of their own self-image, or their own inner appearance of themselves, and individuality, which are all linked ideas, it is possible to infer that self-efficacy influenced their decision-making regarding their career. The implication of this finding is that school counsellors need to create programmes to enhance learners' self-image as this would boost their capacity to make the right career decisions.

The findings also indicated that learner's self-esteem is a significant predictor of career decision-making and that learners with high self-esteem are likely to be more effective in decision making on career choice than their counterparts with a low esteem. This finding is in line with prior findings (Serling & Betz's, 1990; Robins et al, 2001; Haase et al, 2012; Zacher, 2015) which reported that people with low self-esteem have a fragile sense of self that is readily harmed by others. People with high self-esteem, on the other hand, feel good about themselves regardless of their beliefs about their abilities, skills, and other characteristics, whereas individuals with low self-esteem feel bad about themselves even when they believe in their competency.

The findings also reported that there is a positive correlation between career interests and decision-making on career choice, and that a higher career interest is associated with best decision-making on career choice and learners with low career interests have difficulties in career decision making. Therefore, it was determined that career interest has a considerable favourable influence on career decision-making among secondary school learners in Grade 12. This is in line with prior research by Almon & Matsidiso, 2012; Vosh and Schauble, 2014; Nyamwange, 2016; Hechtlinger et al, (2017) that found that a person's job preferences are positively associated with their decision to join a profession. This finding implies that the Department of Basic Education and school principals should plan career fairs that expose learners to a variety of occupations in the hopes that one of them will pique their interest. In order to provide teachers with the social, career development, and educational skills necessary to meet the needs of learners, the Department of

Education should provide training for teachers who specialise in guidance counselling, particularly, Life Orientation teachers. This would give the teachers the knowledge and tools they need to help learners choose a career. This is due to the study's findings that there is a strong link between teachers' influence and career decision-making, and that teachers who are adequately informed about current trends in learners' career decision-making can effectively guide, motivate, and help learners choose subjects that are compatible with their interests and talents as determined by the teachers.

The findings also indicate that stronger psychological identity is associated with more effective career decision-making among Grade 12 learners and weaker psychological identity among learners would lead to inappropriate career decision making. This shows that learners with a high psychological identity, who spend time exploring potential opportunities before making a career selection, are more likely to make better career decisions than those with a low psychological identity. These findings are consistent with the research, which suggests that psychological identity is a component of an individual's well-being that influences vocational decision-making (Mosquera & Stobäus, 2014; Karas et al, 2015). The findings further revealed that learners were focused on doing their very best in the classroom and were driven to succeed regardless of their upbringing and environment concentrating on their academic buoyancy. However, the findings support the Social Cognitive Theory (Bandura, 1977), which contends that personal experiences have an impact on an individual's cognitive function and, consequently, their attitude, development, and ability to make decisions. This finding is contrary to Bronfenbrenner's (1979) Ecological Systems Theory, which maintains that an individual interacts with many environments throughout their lifespan, which may have a variety of effects on their behaviour and decision-making. The implication of this finding is that there is need for the school management teams to create a supportive environment that would stimulate learners' behaviours and decision-making skills regarding their careers.

7.4.2 Social factors and career decision-making of Grade 12 learners in township Secondary Schools

This study demonstrated that there was a significant relationship between peer influence and career decision-making. Therefore, during the career decision-making process, most of Grade 12 learners

are more influenced by their classmates. These findings are consistent with the research, which suggests that peer influence is crucial in a learner's career decision-making process. Furthermore, research shows that peer pressure motivates people to take on more difficult activities as they assess their peers' priorities while making career decisions (Bett, 2013; Naz et al., 2014; Irma, 2015; Okiror & Otabong, 2015). These research findings support Bronfenbrenner's (1979) theoretical claim that a child's environments (peers/friends) and innate personality influence their development, growth, and decision-making. The implication is that there is a need for school counsellors to discuss career issues with learners to enable them to obtain the right information for career decision making.

The study also revealed that there was a significant relationship between teachers influence and career decision-making. This means that teachers frequently provide guidance, motivation, and assistance to learners in selecting specific subjects that are compatible with the learners' interests and talents as assessed by the teachers. This finding correlates with Mittendorff, et al, (2012); Mburu, (2013); and Kaur, (2016) that a teacher who is open-minded, balanced, and well-prepared can have a huge impact on a child's growth. Moreover, as the child matures and acquires mastery of various skills, the teacher becomes a true influence in cultivating his or her desire in learning and helping him or her becomes more self-reliant. A number of teachers support learners to choose specific subjects, which are compatible with learners' propensities and capacities that have been identified. The implication of this finding is that there is a need for the Department of Basic Education to train Life Orientation teachers on career decision making, in order to equip them with skills that would enable them to meet the needs of learners regarding career choice decisions.

The study also reported that there is a strong relationship between career information services and career decision-making. The results suggest that career information services have a reasonably good overall rating and most of the social factors are linked to career information. This finding is in line with previous research, which suggests that giving secondary school learners with educational and career knowledge allows them to consider a variety of career options before deciding on one. Furthermore, high school graduates enter universities or colleges with little understanding of the future prospects of the subjects they select (Hooley, 2013; Nong, 2016; Egbo, 2017; Kaneez & Medha, 2018). This substantiates Bronfenbrenner's (1979) assertion that a child's

environment influences their career choice by combining the functionality of time and consistency of information received. The implication of this finding is that there is a need for school management teams to develop functional career decision making departments where learners could have access to information that would be beneficial to their immediate and future career decisions.

The findings also revealed that there was a significant relationship between older siblings' influence and career decision-making. The findings demonstrate that the majority of the respondents feel that their older siblings have a significant influence on their career choices. According to the research, keeping in touch, having mutually similar beliefs, aspirations, and interests, maintaining family traditions, and having obligations to family members were all key variables in having a close and warm relationship with siblings. These findings are in accordance with (Nawaz & Gilani, 2011; Herndon, 2011; Bohmer & Sitton, 2016) who all reported that the support and enhanced understanding of events and personal experiences provided by older siblings benefited decision-making. In this regard, studies by Fagan and Najman (2003); Whiteman and Christiansen (2008) also revealed that older siblings gain essential socio-emotional support and advice about tertiary education as a result of their interactions with parents, siblings, and friends. This is especially important when it comes to assisting younger siblings with career decisions and the enrolment process for university.

The findings of the study also indicate that there is a significant relationship between parental education level and Grade 12 learners career decision-making in township Secondary Schools. This suggests that the effectiveness of career decision-making among Grade 12 learners in secondary school is dependent on their parents' educational levels, with learners whose parents have a higher education likely to be more effective than those whose parents have a lower education. This research supports previous findings that parents with adequate levels of education are more likely to obtain decent employment, and that their level of income and experience motivates them to provide better educational support for their children and discuss job opportunities, encouraging their children to develop better career awareness than children who are not exposed to this type of information (Udoh & Sanni, 2012; Moris-Lange & Brands, 2015; Mbagwu & Ajaegbu, 2016; Xing & Rojewski, 2018). In agreement, Bandura (1977) noted that learners from affluent and highly educated families appear to have high career ambitions due to

the pertinent academic support they receive from their parents, whereas learners from underprivileged backgrounds may find it difficult to make the necessary career decision due to their perceived low career self-efficacy. The implication of this finding is that there is a need for school management to develop training programmes for parents to enlighten them on career decision making for learners.

The qualitative results also showed that parents who were aware of the system and the many career options were very supportive. Some individuals' career decisions were influenced by the career guidance they received from either their mothers or their fathers. In many situations, boys desire to be like their fathers, but this can only happen if the father has a career that the boys like. Fathers have a major influence in their children's choice of employment, and many children rely on their fathers' guidance. From these study findings, it is obvious that the mother has a significant influence on the choices that her children make about their careers. While some mothers are incredibly supportive, others have the opinion that they are the wisest and that they are the ones who know their children the best. These results support the claims made by Howard and Walsh (2011) as well as Hui and Lent (2018) that, depending on the strength of the family, a learner's commitment to continuing their education beyond high school may be strengthened, while a learner's career goal may be cut short.

The findings also revealed that secondary school learners have the choice to select their subject combinations starting in Grade 10, which defines the path they take after Grade 12. This enables learners to interact with the subjects and combine subjects that most closely match their interests and capabilities. The option to choose a subject allowed learner the opportunity to pursue their ideal careers; a subject's interest might help learners grow a passion for a particular profession, which could provide the opportunity for learners to hone their innate talent and abilities. These results support the assertions made by DBE (2012) that learners are introduced to subjects that they will study in Grades 10, 11, and 12 in Term 3 of Grade 9, which connects career interest with subject selections. During this phase, decision-making abilities are also introduced. Learners are instructed on how to choose subjects that are relevant to their skills, interests, and professional goals. The implication of this finding is that there is a need for school counselors to guide learners towards choosing the right subjects that would best prepare them for their future aspirations.

The study's findings report that support from neighbours is crucial when learners are choosing their careers. Although the majority of learners detest their living environment, neighbour support is important when choosing a career since some neighbours have provided as inspiration for learners. The findings also indicated that exposure to the knowledge gained through television programmes and media led to the choosing of a career. This supports Bronfenbrenner's (2005) theoretical assertion that choices might entail a change in work status as well as significant societal events including conflict and economic succession. The findings of this study also showed that having a role model provide a motivating environment for pursuing a career in the same or a related field. Similar to having a mentor, having a role model can give someone the possibility to imitate that person in order to attain their aims and ambitions, this is consistent with the study findings by Gibson (2004), Usman and Abdullah (2021). Therefore, the three interconnected purposes of role models are to "give learning, to provide inspiration and encouragement, and to assist individuals establish their self-concept." Additionally, as a mentor to a mentee, role models may offer the individual real-world assistance and advice.

7.4.3 Demographic factors (gender and age) and career decision-making of Grade 12 learners

The findings revealed that there was statistically significant difference noted in career decision-making between genders, with male learners being more effective in career decision-making than their female counterparts. In the light of these findings, there is consistency with results found by previous studies that revealed that gender is significant in guiding students towards certain careers (Mapfumo, et al., 2002; Ahuja et al., 2006; Tang et al., 2008; Durosaro & Adebanke, 2012; Wesarat et al, 2016; Hudson, 2019). This also supports Rensburg's (2017) findings that both males and females were motivated by the same variables, with both male and female learners refer to salary, opportunities for growth, working settings, and lifelong learning as important criteria. As a result, it is concluded that gender has no bearing on Grade 12 learners' career choices. This has implication for the quality of decision made by both male and female learners.

The findings of the study also indicated that there is a significant relationship between age and career decision-making of Grade 12 learners in Township Secondary Schools. The study revealed that people are more likely to change careers when they are younger and more educated, but this is not always because they are more open to new experiences but rather

because they are wiser and matured. Individual characteristics as well as the labour market are both factors that influence career adaptability as much as individual needs. This finding is in line with prior research that found that age has influenced learners' career choices in Secondary Schools (Rose, & Rudolph, 2006; Rose, & Smith, 2009; Shumba & Naong, 2012; Martincin & Stead, 2014; Laveck, 2018; Akpochafo, 2021). In addition, the career choices as children are based on their favourite TV characters and they imagined themselves in the role that the character plays. However, with age comes wisdom and they erstwhile career dreams changed dramatically, since it is necessary for them to face reality as they are no longer living in a fantasy world. Consequently, the degree to which Grade 12 learners make career decisions differs depending on their age. There is statistically significant relationship between the career decision-making index and grade 12 learners' age groups of 17-18 years, 19 years, and above. Many scholars are of the opinion that children should be introduced to careers while in their teen, that is, age 13 or 14 (Fabunmi & Adedayo, 2017; Kornblum, Unger & Grote, 2018). However, a career decision for teenagers at this age is transitory and impractical, because the potential of the child at this stage cannot be established. Consequently, it could be the right time to introduce children to career information and broaden a child's perception concerning the world of work. It is a perfect time to reflect on one's interest in a career and steps to take towards achieving it. The implication of these findings is that teacher counsellors should expose learners to a variety of careers at early ages in order to enable them to make a fulfilling selection when it comes time to choose a career.

7.4.4 Challenges Faced by Learners in Career Decision-Making Process

The study findings have revealed that family challenges (low family socio-economic status, siblings' delinquency, poor access to internet/connectivity), school related challenges (inadequate career guidance and counselling in schools, a lack of career information services, peer deterrents, subjects combinations, inadequate knowledge on careers, mismatch of personality and career interest, perceived difficulty of certain careers, inadequate knowledge of subject choices), and community related challenges (perceived inability to obtain government bursaries, perceived unemployment among youths, community deficits and apathy, community deterrents, lack of role models) are some of the challenges that learners faced during the career decision-making process. The challenges faced by learners are discussed below:

7.4.4.1 Family related challenges

According to the findings of the study, the majority of participants believed that finance is a key impediment to them pursuing their intended vocations, and that in some cases, learners may be prevented from doing so. Because the majority of the learners in this study came from a lower socioeconomic background, their families were unable to support their career choices due to the financial commitment that would be necessary. This study's findings are consistent with Du Plessis' (2014) findings that learners' career choices are influenced by their family's financial situation, leaving them uncertain about their future. Furthermore, sibling delinquency can have a beneficial or bad impact on other siblings. The research also found that, with technology playing such a significant role in education these days, learners must have internet connection. Without a doubt, by giving learners with the essential access to technology, a family with a strong education as well as a social personal history can motivate learners' development and cognitive skills. In agreement, Nhando, (2015); Mooketsi, (2016); Botha, (2017); Graham and De Lannoy, (2017) all contend that if learners have little or no access to the Internet, their exposure to new ideas and worldviews may be constrained, which would limit their capacity to develop self-awareness and an understanding of the workplace.

The internet connection enables secondary school learners and Higher education students' access to information required for assignments and projects, but there is no general agreement that having access to the internet influences the academic results of the user. In agreement, Aguirre, Forero, Castellanos Saavedra, and Malagón (2021) established that the presence of the internet and computers in a home has a positive influence on learners' performance. As a result of Technology, a vast choice of educational resources may be accessed which could support "self-learning and the development of new skills" (Jo Shan, 2013; Bulman & Fairlie, 2016). However, the influence of technology on academic performance is dependent on how the internet and computers are used by learners to enrich their learning (Tamim et al., 2011). Additionally, a number of researchers have claim that access to personal computers and the internet at home could negatively affect the academic performance of learners as they are distracted by technology alternatively, it could assist with teaching and learning (Fuchs & Woessmann, 2004). The implication of this finding is that there is a need for the Department of Education to provide continuous financial support to learners in the form of bursaries for more learners especially those from disadvantaged communities.

The majority of parents in the areas where this study was conducted are unable to provide the necessary internet access. Mooketsi, (2016); Botha, (2017); Graham and De Lannoy, (2017) all agree that giving Internet access to township learners is a costly proposition for most African governments, and it is even more costly in distant and rural areas, where internet connections are likely to be unreliable, if at all. The implication of this finding is that schools should have internet services that could provide learners with needed support and assistance towards their learning.

7.4.4.2 School related challenges

The findings indicated that there is lack of access to career assistance and counseling for Grade 12 learners, as well as career information in schools. The majority of learners at the schools where this study was conducted agreed that they did not receive any career assistance when choosing their careers. Additionally, the majority of learners have no idea what they want to accomplish in the future or where they should concentrate their efforts in terms of a career choice. In agreement, Singh, (2012); Gama, (2015); Coetzee et al, (2015); van Zyl, (2017); Maree, (2017); Maila and Ross, (2018) all found that there is still a lack of vocational counselling and information for learners in many rural areas of South Africa. The majority of schools in these outlying areas are unable to provide adequate guidance and education to learners as they make career options. Teachers in township schools who are in charge of LO do not have the required qualifications or training to provide vocational counselling (Mojapelo, 2016; Fraser, 2017). This implies that there is a need for schools to have career counsellors who would point the learners in the right direction and provide them with the necessary guidance needed during career decision-making.

This study also reported that some learners were unable to pursue their desired vocation because they lack the necessary subject combinations. Therefore, learners are forced to take certain subject combinations as a result of their poor Grade 9 scores, which seal their fate when it comes time to choose a career after Grade 12. This is in line with Gama's (2015) findings that subject combination impacts a learner's fate when it comes to picking a vocation; as a result, most learners with great ideas are unable to follow them because of their subject combination in grade 10, which will limit their future success. The implication here is that there is a need for teacher counsellors to guide the learners towards combining the right subjects that would match their interests, personality and capabilities.

7.4.4.3 Community related challenges

The findings of this study show that the community has an influence on learners' career choices. The study reported that perceived unemployment among the youth was a significant factor which influenced career decisions among Grade 12 learners. This finding concurs with Wilkinson et al., (2017), that the high unemployment rate, changing labour market structure, and mismatches between labour market skills and those supplied through educational learning institutions are the most significant factors contributing to the increased prevalence of youth unemployment. To emphasize, the community in which these learners live is primarily uneducated, illiterate, and apathetic due to a variety of factors. As a result, education is not a top priority; instead, the focus is on contributing to the family's finances rather than pursuing a higher education or a career. The implication of this finding is that teacher counsellors should educate learners about scarce skills available that they could consider in their career decisions.

7.3.5 Structural equation modelling explaining the relationship between psychological, social factors and career decision-making

This study developed a unified psychological and social model of influences on career decision making that could assist learners to decide on the career path that they propose to follow after Grade 12, which is presented in chapter five of this study. The findings indicated that the model fit for psychological factors (PF) including Big Five Personality types, Self-efficacy, Self-esteem, Locus of Control, Career interests, and Psychological Identity was significantly validated the sample data fit. The findings revealed that Big Five Personality types and Self-esteem did not have any direct influence on learners' career interests. This implies that irrespective of learner's personality type and whether a learner has a high or low self-esteem the career interest remains unchanged. These findings contradict those of Harry (2017), and Chilungamo, et al, (2019) who found that personality types have an influence on career decision-making. In addition, this finding is contrary to that of studies by Haase et al, (2012); and Zacher, (2015) that both contend that high self-esteem makes people to feel confident about their skills and abilities while people with low self-esteem feel bad about themselves even when they believed in their competency. On the contrary, self-efficacy displayed the highest influence on career interest, which affects career decision-making among grade 12 learners. This assumption is in line with Odanga et al., (2015); Sachitra and Bandara, (2017) findings, which maintain that self-efficacy has an influence in

learner's career decision-making. That is, an improvement in a learner's self-efficacy produced the best career interests, which in-turn affects decision-making. Therefore, from the finding it could be argued that learners with high self-efficacy experienced an increase in career interest compared to learners with low self-efficacy. In the same vein, Locus of control and psychological identity both have positive influence on career interest. This is in agreement with the findings of Mohsin, (2013); Nyamwange, (2016); Hechtlinger et al, (2017); Owusu, et al, (2019); Rumalutur and Salim, (2020) who all agreed that locus of control and psychological identity influence career decision-making among learners. This suggest that learners with an improved psychological identity and high internal locus of control would experience an increase in their career interests.

From the structural equation modelling for this study, it was demonstrated that model of social factors from peers, teachers, older siblings, and career information services was considerably defined to the sample data fit. The influence of older siblings was established with the highest influence on career information, implying that any rise in older siblings' influence would result to an improvement in career information, which indirectly affects career decision-making. This conforms to the findings of Bohmer and Sitton, (2016); Egbo, (2017); Kaneez and Medha, (2018) who assert that most learners pursue higher education institutions with little knowledge of the future prospects of the subjects that they select in secondary school. This finding also agrees with Kaur, (2016) who found that a well-prepared teacher could have a huge influence on a child's growth and maturity, as the child acquires various skills. This could imply that the more competent a teacher is, the more the career information learners have access to and indirectly this could influence their career decision-making. The implication of this finding is that there is a need for well-trained teachers who could assist learners with career information, which would serve as a support system to learners during career decision making.

7.5 CONCLUSIONS OF THE STUDY

This section presents the conclusions derived from the findings of this study.

7.5.1 Psychological factors and Grade 12 learners' career decision-making

In light of the study findings, it is concluded that personality traits are important in enhancing effective career decision making and that the leaners with conscientiousness personality are best

placed to make accurate career decisions while learners with neuroticism personality had poor career decision making skills. The study also concludes that the extent to which people sense that they are in control of events have influence on how they make career decisions, with those exhibiting internal locus of control being relatively effective in career decision making than their counterparts who have external locus of control. In addition, the study concludes that individual capability influences their career decision-making, those with high self-efficacy tends to make more reliable career decision compared to individuals with low self-efficacy. Furthermore, it is concluded that low self-esteem result in learners making unfruitful career choice decision, while those with high self-esteem decides on career that are productive and linked to their interest.

The study's findings led to the conclusion that learners' varied career interests influenced their decision to pursue their preferred careers. Thus, it can be said that career interest had the most influence on learners' career decisions of all the factors considered in this study. Additionally, it could be concluded from the study's findings that learners with a strong psychological identity consider a variety of career options before making a choice. This study also concludes that learners' career decisions are influenced by their academic performance; learners who are doing well in school tend to be more determined and capable of making choices that are more in line with their career goals.

7.5.2 Social factors and career decision-making of Grade 12 learners

Based on the findings of this study, it is concluded that learners' career decisions are significantly influenced by their parents. The encouragement that learners needed to achieve their chosen objective was given to them by both their mothers and fathers, who supported them. The study also concludes that teachers have an influence on learners' career decisions, that learners' confidence is boosted by the presence of capable teachers, and that learners can rely on those teachers for moral and academic support. The study further concludes that peers and friends have an influence on secondary school learners' career decisions, which is an important component to take into account while learners are making their choices. Peer and friend interaction primarily results in emotional or informational support that could influence an individual's choices regarding their career.

The majority of participants in this study credited their siblings with influencing their career decisions; consequently, this study draws the conclusion that older siblings have an influence on learners' career decisions. Based on the results of the decisions made by the older siblings, learners were encouraged to pursue careers that were comparable to those pursued by their siblings. Although learners had both positive and negative influence from their elder siblings, the types of influence older siblings have on learners depended on their circumstances.

The subjects that learners choose from Grade 9 to study till Grade 12 provide them with knowledge that could enhance their growth and development in choosing a career. The conclusion drawn by this study is that learners' chosen subjects influence their career decision-making. Also, it is concluded that the parental level of education has a significant influence on the career decision-making of Grade 12 learners. This study's findings revealed that parents with formal education were able to guide their children towards pursuing higher education qualifications. Parents without formal education, on the other hand, have no capacity to influence their children's decisions on a career path. The study also concluded that support from neighbours influences career decision-making among Grade 12 learners.

The study concludes that the media is seen by youngsters as a resource for solutions to the majority of their issues as well as a model for how to lead a respectable or extravagant life. The media, however, may be a great instrument for learning new topics and improving existing ones if used properly. The conclusion that could be drawn from these findings is that TV/Media has a significant influence on career decision-making of learners. This study also concluded that role models influence career decision-making among Grade 12 learners.

7.5.3 Demographic factors (gender and age) and career decision-making of Grade 12 learners

The study concludes that gender has no significant influence on career decision-making among Grade 12 learners. Therefore, as people get older and wiser, their once-fantasy career aspirations change radically since they must now face reality because they are no longer children. An age change among learners contributes to better decision-making and the achievement of their chosen professional goals. The ability to recognise changes in life and make appropriate decisions was

made possible by the maturity of the learner's age. In this study, it is concluded that learners' career choices are significantly influenced by their age.

7.5.4 Challenges Faced by Learners in Career Decision-Making Process

Learners in this study faced quite a number of challenges in their career decision-making process, considering the area in which they live. These challenges range from family challenges to school and community challenges. The study concludes that lack of information regarding the world of work affected learners' career deciding on the right career path. The study also concludes that learners' inability to match their personalities to one of various careers available is the most significant challenge faced by learners in this study. Had it been that learners had been exposed to career guidance; this challenge would have been averted.

To reiterate, this study was conducted with learners from a disadvantaged background. Consequently, their lower socio-economic background challenged their career decisions, which limits their choice of career. Sibling's delinquency as an immoral or illegal behaviour that is not accepted in the society, which may have a positive or negative influence on the other siblings served as a challenge to learners during the career choice decision. Considering the area which these learners come from the inability to obtain government bursaries may mean the end to their future ambition, as their parents do not have the capacity to sponsor them to higher education institutions. Funding is a hindrance to further education for learners in township Secondary Schools as majority of them rely solely on government funding to achieve their educational goals.

Based on the findings of this study, it is concluded that the presence of a career counsellor could have made a difference in these learners' lives concerning their career choices. Equally, the lack of career information services affected learners as they were unable to make a sound decision because they do not have access to facilities that could provide them with information on various careers that are available. Inappropriate subject combinations limiting career choices is another challenge that faced learners. Combining subjects in Grade 10 requires a thorough knowledge concerning what can be achieved with the subjects at the end of Grade 12, which is lacking among most secondary school learners in township. The absence of a career counsellor in township Secondary Schools made it difficult for learners to know the right combination of subjects that could lead them to their desired goals.

Another challenge facing learners' career decision-making is perceived unemployment among youths. With unemployment rate rising on a daily basis, most individuals are forced to take up entrepreneurship as a fall-back option because there are no jobs and learners are confused on what career to choose. In the community where this study was conducted, education is the lowest priority as learners were expected to contributing towards living expenses in the family, hence, there was no support from their community to further their education. Some of the learners in this study perceived a lack of role model as a challenge. Since, majority of the learners are unable to decide on what to do as a career in the future. It is believed that the presence of a role model would have made a difference, as they will get someone to emulate and ask disturbing questions concerning their choice of career and be able to get proper direction from that individual. Thus, this study concludes that a role model could have assisted learners in making the right choice regarding their career.

7.5.5 Structural equation modelling of relationship between psychological, social factors and career decision-making

In light of the findings, these lead to the conclusion that the model fit for psychological factors was statistically significant to the sample data of covariance between exogenous variables, suggesting that all of these variables were significant and had a strong relationship to career choice. In light of these study findings, it can be concluded that the social model was successfully fitted to the sample data of covariance between exogenous variables, showing that all social factors were closely related to career decision-making.

In conclusion, the psycho-social model for career decision making is appropriate and fit for demonstrating the structural relationship between psychological, social factors and career decision-making among Grade 12 learners after the psychosocial factors were fitted to the sample data of covariance.

7.6 CONTRIBUTIONS OF THE STUDY

This study adds to the body of knowledge and understanding of factors influencing Grade 12 learners' career decision-making in township Secondary Schools, as well as the challenges that these learners faced in this respect. First, the study has developed a proposed 8-stage career decision making model for learners in Secondary Schools. The model is based on the most

significant findings from quantitative results on the psychological factors that contributed most to career decision making among learners. The development of this model is a very unique contribution to literature as no study exists with such a model.

Secondly, the findings of this PhD study make a very strong contribution because they are very comprehensive because it adopted a mixed methods research paradigm hence, it has both quantitative and qualitative results on factors influencing career decision making among Grade 12 learners. This is unlike studies that exist in literature which only examined one or two factors but using a single paradigm unlike the combined one for the present study. Thirdly, from literature review, there is no such a study that has been done on psychosocial factors influencing career decision making with emphasis on the two aspects as this study. Therefore, this PhD thesis contributes immensely to the development of literature on career decision making among Grade 12 learners in Secondary Schools. This is because most studies that exist in literature focused on either psychological or social factors only but very few had a combined approach of both. Moreover, of the few that had a combined aspect, none of them developed a structural equation modelling in a bid to enhance the data analysis of quantitative data. Therefore, the development of structural equation modelling elevates this PhD study to a higher level as compared to studies that exist in literature.

Fourth, this PhD thesis has contributed to a critique of Bronfenbrenner's (1979) Ecological Systems Theory. This is because the study revealed that learners were focused on doing their very best in the classroom and were driven to succeed regardless of their upbringing and environment by concentrating on their academic buoyancy. Therefore, this finding is contrary to Bronfenbrenner's (1979) Ecological Systems Theory assertion, which maintains that an individual interacts with many environments throughout their lifespan, which may have a variety of effects on their behaviour and decision-making. Therefore, the counterargument to the theory would lead to its further development.

7.7 RECOMMENDATIONS

This section presents recommendation for education policy and practice and recommendations for further study. These recommendations are based on the findings of this study for the purpose of comprehending the influence of psychosocial factors on career decision-making of Grade 12 learners in township Secondary Schools in Gauteng.

7.7.1 Education policy and practice recommendations

From the study findings and conclusions, the following specific recommendations are suggested for practice:

7.7.1.1 The Proposed 8-stage Career Decision-Making Model

One of the major recommendations that have emanated from this study is the development of a career decision-making model for learners in Secondary Schools. The study proposes an 8-stage Career Decision-Making Model which could assist learners in Secondary Schools to make accurate career decisions. The proposed career decision-making model is as presented in figure 10 below:

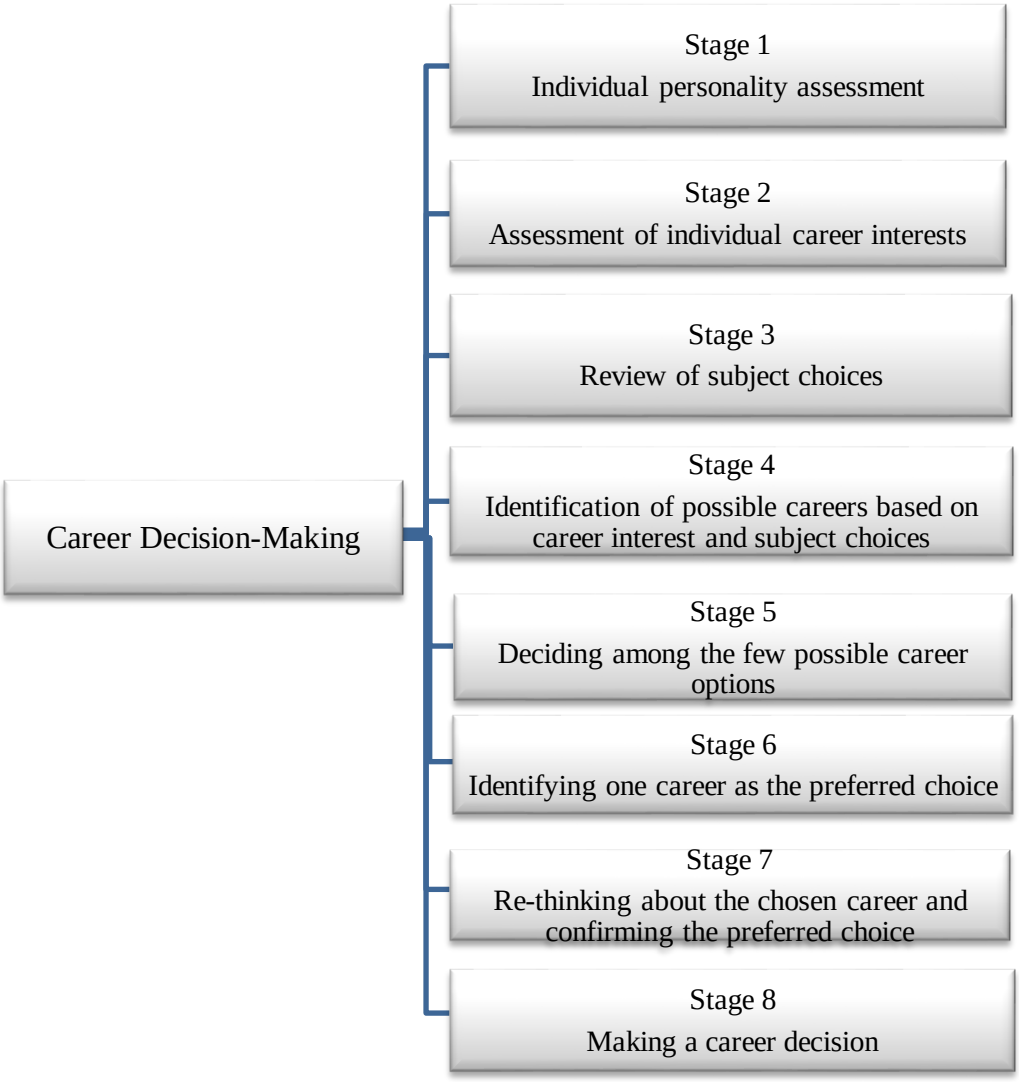


Figure 10: *The Proposed 8-stages Career Decision Making Model*

Source: Developed from Author's Primary data (2022)

The 8 stages of career decision-making emanate from the findings of this study, which identified personality types and career interests as the most significant factors in career decision-making. The 8 stages of the proposed career decision-making model are discussed as follows:

Stage One: ***Individual personality assessment***

The first stage of the proposed career decision model is the individual personality assessment. This involves the assessment of personality traits of individual learners to enable them to be aware of

themselves so as to help them make career decisions that is in line with their personality traits. This is done through personality inventories such as the Big Five Personality Inventory. A personality assessment could help the learners to better understand themselves, including their strengths and weaknesses. Therefore, understanding one's personality could help learners to have a deeper understanding of their own behavioural tendencies. It is essential for people to be able to match their personality to their intended careers for career decisions to be productive and efficient.

Stage Two: ***Assessment of Individual career interests***

This is the second stage in career decision making model and it comprises taking learners through assessment of their career interests using career interest inventories. The assessment of career interests among learners might help to assess their capacity for selecting an occupation from a broad range that aligns with their interests. It is intended to assist in locating potential career paths for a person.

Stage Three: ***Review of subject choices***

Stage three involves the review of chosen subjects from Grade 10 on the basis of learners' academic self-efficacy, self-esteem, and career interests. This involves learners evaluating their chosen subjects according to their academic performance, which could lead to preferred career choices since they have already known how they view their capabilities in performing certain tasks. At this stage, learners are expected to be able to identify careers that are linked to their unique academic self-efficacy, self-esteem, and career interests based on their chosen subjects, which could lead them to choose careers in a scarce field or profession.

Stage Four: ***Identification of possible careers based on career interests and subject choices***

This is the fourth stage of the proposed career decision-making model. Following the identification of a select few careers that best suit an individual's personality and interests, learners have the capability of selecting few most preferred and valued careers that relate to their subject choices. Therefore, each learner remains with few preferred career choices that they value the most.

Stage Five: ***Deciding among the few possible career options***

The fifth stage involves making a decision among the few possible careers in order to select the best one for the individual's interests. At this stage, the learners have a task of filtering on their few possible career options to make a decision on the one that would be their preferred choice.

Stage Six: ***Identifying one career as the preferred choice***

The stage six of the proposed career decision making model involves selecting one most preferred career from the few options. The learners at this stage identify with one career after taking into consideration the previous assessments. Therefore, one of those possible careers in stage five is thus identified as the career of choice for a given learner.

Stage Seven: ***Re-thinking about the chosen career and confirming it as the preferred choice***

This is the seventh stage of the career decision-making model. In order to confirm that the chosen career is the most desirable vocation, learners at this point assess the chosen career in comparison to the possibilities accessible. Before making a final decision, it is necessary to return to stages one, two, three and re-evaluate if there is any uncertainty.

Stage Eight: ***Making a career decision***

This is the last stage of this proposed career decision-making model. At this point in the career decision process, the learner is satisfied that the chosen career is a good fit for their personality, interests and subject choices. The proposed career decision-making model considers the assessments of both personality, career interests and subject choices to be central in this process because the findings of this study showed that personality types and career interests are the most significant psychological factors in determining career decisions among learners in Secondary Schools. While subject choices serve as the gateway into learners' career choices.

7.7.1.2 Development of skills training and career intervention programs for learners in schools

The study recommends that the Department of Basic Education should develop skills training and career intervention programs such as career expos to be held in schools to introduce learners to numerous vocations rather than focusing just on content or academics. The content of such

programmes would help learners enhance their capacity for career decision-making as well as practical activities that will prepare Grade 12 learners for the world of work. This would also ensure that the learners who are underperforming academically have skills that can be identified and developed, they should be referred to vocational training to advance their skills and give them the opportunity to make the best career decisions possible. This is because the findings of this study reported that some of the participants relied on external support to make career choice decision, which has a significant influence on learners' career decision-making.

7.7.1.3 Need for training and retraining of teachers on career decision-making skills

The Department of Education should train and retrain teachers who specialize in guidance counselling (Life Orientation teachers) in order to equip them with social, career development, and educational skills to meet the needs of learners, and guidance training should be prioritized in funding. This is because the study revealed that there was a significant relationship between teachers influence and career decision-making and that teachers with adequate knowledge on current trends on carer decision making for learners would effectively provide guidance, motivation, and assistance to learners in selecting specific subjects that are compatible with the learners' interests and talents as assessed by the teachers. This would present the teachers with necessary skills and capacity to assist learners in deciding upon a career.

7.7.1.4 Need to educate parents on career decision making of their children

The study recommends that principals and teachers should work with parents and educate them on the importance of career choices of their children. It is essential to educate parents on the advantages of allowing their children to choose careers that suit their interests and personalities with minimal involvement and influence. Consequently, the school should develop training programmes for parents to enlighten them on career decision making for learners. This is because the study reported that parent has a significant influence on learners' career choice decisions.

7.7.1.5 Prioritization of scarce skills training for learners in South African Schools

The study recommends that the Department of Basic Education should develop scarce skills training for learners, and enlighten learners on the careers that have abundant opportunities. This would help learners to bridge the gaps on training and available career opportunities after school, which would later enhance employability among learners. The scarce skills training would be spearheaded by teacher counsellors and Life Orientation teachers in schools prior to learners choosing their subject combinations in Grade 10. This is because the study revealed that perceived unemployment among youths is a significant challenge to learners' career decision making.

7.7.1.6 Need for up scaling development of information communication technology infrastructure in schools

The study recommends that schools should have a functional computer centres with access to internet connectivity to provide learners with needed support and assistance towards their learning. This could also expose learners to required information and develop their skills towards career decision making. This is because the study reported that the lack of internet services at schools and homes presents a challenge to learners' having access to information regarding various careers that they could choose from while making career choice decisions.

7.7.1.7 Need for employment of trained teachers and counsellors in public Secondary Schools

The study recommends that the department of Education should employ trained career counsellors in public Secondary Schools. The availability of trained teacher counsellors in schools would assist learners in selecting the best subjects' combinations that could lead to their desired career. This is important because if learners are left to their own devices, they may make decisions for the wrong reasons. Moreover, trained teacher counsellors would eliminate this problem because they would be able to assess and assist learners based on their abilities, interests, and personalities. This is because the study reported that the presence of a career counsellor would alleviate most of the challenges that learners experienced while making career choice decisions and give them the opportunity to consult with an expert who would direct them on the right track regarding their career decisions.

7.8 Limitations of the Study

In any study of this nature, it is inevitable to encounter limitations. Below follows a discussion of limitations experienced during the data collection for this mixed methods study:

7.8.1 The advent of the Covid-19 pandemic

The most challenging limitation was the onset of the Covid-19 pandemic which required a change to my data collection method. The researcher had to change from the semi-structured in-depth face to face interviews to an online mode by using WhatsApp and Zoom calls. Related to the Covid-19 restriction and the fact that this study was conducted in disadvantaged community where there are financial constraints, participants had the added responsibility of having to buy airtime and data in order for them to participate in this study. The researcher addressed this by having the interviews to be rescheduled and conducted at the school premises where the participants had the opportunity to connect to the school's WIFI when there is network coverage, and in certain cases because learners had problems adhering to the schedule for the second time the interviews had to be rescheduled once again. Despite this change in mode of interviews, it was possible to collect thick rich data for the study.

7.8.2 Misplacement of research instruments at one school

One serious setback was when the questionnaires, participant's information sheet, consent and assent forms were misplaced by the Deputy Principal at one of the schools and this caused a delay in the analysis of the quantitative data, which further delayed the writing of the findings. However, this was addressed by making new copies of the research tools which were delivered to the affected school and all data were collected at a later date.

7.9 Suggestions for further research

On the bases of the study findings, conclusions and limitations of the study, the following suggestions are proposed for future research:

- As this study was limited to the Ekurhuleni East District of Gauteng, future research could include a larger sample of schools from a wider cultural, regional, and geographic area of South Africa as variables to be investigated further in relation to learners' career decisions.

Including a larger sample size to acquire more extensive data would also be useful in achieving this.

- Other research might focus on factors influencing grade 10 and 11 learners' career choice decisions, since learners choose their subject combinations in grade 10.

- Future research could look at additional factors that influence learners' career decisions, such as values, culture and globalisation, as well as other personality traits.

- Further studies could also investigate the effectiveness of the Life Orientation teachers on career decision making among learners in township Secondary Schools.

- A study of this sort should also be expanded to include schools in affluent neighbourhoods and private schools, with a focus on factors influencing grade 12 learners' career decision-making process.

7.10 CONCLUDING REMARKS

The current study examined the psychosocial factors influencing Grade 12 learners' career decision in township Secondary Schools in Gauteng. This study revealed that psychosocial factors were found to be important in Grade 12 learners' career decision-making in township Secondary Schools in Gauteng. This study also discovered that psychosocial factors have a significant impact on Grade 12 learners' career choices. Bandura's (1977) Social Cognitive Theory, which provides a framework for visualising, understanding, and influencing human behaviour, could support the study's conclusions. The theory also examines how children and adults process personal experiences cognitively and how these experiences may influence their behaviour and development. The study also revealed that demographic factors (gender and age) have a substantial influence on Grade 12 learners in township Secondary Schools. Gender has no substantial influence on Grade 12 learners' career decisions in township Secondary Schools. The study indicated that age has a significant influence on Grade 12 learners' career decisions in township Secondary Schools, Gauteng. Furthermore, the study established a variety of challenges that Grade

12 learners in township Secondary Schools face when making career decisions. These challenges were found to have a variety of effects on the career decision-making process of Grade 12 learners. With the school, home, and community all playing a vital part in promoting a smooth career decision-making process among Grade 12 learners in township Secondary Schools in Gauteng, South Africa, as well as the growth of learners' interest in career decision-making. This is supported by Bronfenbrenner (1979), who asserts that children naturally become involved in several ecosystems, starting with their most beloved home ecosystem and progressing to larger school ecosystem and finally to a larger system that includes society. The Ecological Systems Theory's various components all inevitably interact and have an impact on one another in different ways that influence children's lives.

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APPENDIX A: QUESTIONNAIRE FOR LEARNERS

CAREER DECISION-MAKING SCALE (CDMS)

This questionnaire seeks to assess psycho-social factors influencing career decision-making of Grade 12 learners in township secondary school in Gauteng. The study is part of the researcher's Doctor of Education in Psychology Degree at the University of the Witwatersrand Johannesburg and should assist learners, career guidance and counselling services in career decision-making process at Secondary Schools. You do not need to write your name as no respondent will be traced or identified from this study whatsoever as confidentiality and anonymity are guaranteed. There is no right or wrong answers. The researcher is only interested in your personal opinion. All data and information generated from this study will be treated as strictly private and confidential. You are therefore kindly requested to complete the questionnaire as honest as possible. Thank you for participating in this study.

Section A: Biographical information

Kindly indicate your response to each question by placing a tick ☐ in an appropriate box.

Age:

15- 16	
17-18	
19 - above	

Gender:

Male	
Female	

Parental level of education:

University level	
College level	
Secondary school level	
Primary school level	
No formal schooling	

Family income:

Less than R5,000	
R5,000-R10,000	
R10,000-R15,000	
R15,000-R20,000	
R20,000 above	

Parental occupation:

Father's occupation

General labourer	
Professional	
Self employed	
Never employed	

Mother'soccupation

Domestic worker	
Professional	
Self employed	
Never employed	

Section B: Psychological factors

BIG FIVE INVENTORY (BFI)

Instruction

In the table below are some characteristics that may describe you. Read each statement and put a tick or X under the score that most accurately indicates the extent to which you agree or disagree with that statement. The scoring key is as follows: ***1. Strongly Disagree***

2. Disagree*,* ***3. Neither agree nor disagree (Neutral)****;* ***4. Agree****;* ***5. Strongly Agree***

A score of 5 indicates Yes, you strongly agree with the statement, and 1 indicates No, you strongly disagree with it.

	Items	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	I am talkative					
2	I tend to find fault with others					
3	I do my job well					
4	I am always depressed					
5	I am original, come up with new ideas					
6	I am reserved					
7	I am helpful and unselfish with others					
8	I can be somewhat careless					
9	I am relaxed and handle stress well					
10	I am curious about many different things					

11	I am full of energy					
12	I start quarrels with others					
13	I am a reliable learner					
14	I Can be nervous					
15	I am a deep thinker					
16	I generate a lot of enthusiasm					
17	I have a forgiving nature					
18	I tend to be disorganised					
19	I worry a lot					
20	I have an active imagination					
21	I tend to be quiet					
22	I am generally trusting					
23	I tend to be lazy					
24	I am emotionally stable, don't get easily upset					
25	I am inventive					
26	I have an assertive personality					
27	I can be cold and aloof					
28	I persevere until the task is finished					
29	I can be moody					
30	I value artistic, aesthetic experiences					
31	I am sometimes shy, keep to myself					
32	I am considerate and kind to almost everyone					
33	I do things efficiently					
34	I remain calm in stressful situations					
35	I prefer work that has a routine					
36	I am outgoing, sociable					
37	I am sometimes rude to others					
38	I make plans and follows through with Them					
39	I get nervous easily					
40	I like to reflect and play with ideas					
41	I have few artistic interests					
42	I like to cooperate with others					
43	I am easily distracted					
44	I am sophisticated in art, music, or literature					

Self-efficacy scale

This scale is a self-report measure of self-efficacy

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for learners in their decision-making process. Please indicate your opinions about each of the statements below by making a tick or X in the appropriate column. The responses are indicated in a 4-point Likert scale, ***Not at all true, Hardly true, Moderately true and Exactly true.***

Items	**Not at all true 1**	**Hardly true 2**	**Moderately true 3**	**Exactly true 4**
1. I can learn what is being taught in class	□	□	□	□

2. I can figure out anything if I try hard enough	□	□	□	□
3. If I practiced every day, I could develop just about any skill	□	□	□	□
4. Once I've decided to accomplish something that's important to me, I keep trying to accomplish it, even if it is harder than I thought.	□	□	□	□
5. I am confident that I will achieve the goals that I set for myself	□	□	□	□
6. When I'm struggling to accomplish something difficult, I focus on my progress instead of feeling discouraged.	□	□	□	□
7. I will succeed in whatever career path I choose.	□	□	□	□
8. I believe hard work pays off.	□	□	□	□
9. I think no matter who you are, you can significantly develop your level of skills and talent.	□	□	□	□
10. I can change my basic level of ability considerably.	□	□	□	□

Locus of Control Questionnaire

Complete the following questionnaire by choosing the statement that the extent to which you agree with the most by putting a tick or X in the correct column.

The scoring key is as follows: ***1. Strongly Disagree2. Disagree****,* ***3. Neither agree nor disagree (Neutral)****;* ***4. Agree****;* ***5. Strongly Agree***

Items	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. Most of the time, I do feel that getting good grades meant a great deal to me					
2. I believe that if somebody studies hard enough he or she can pass any subject					
3. I believe that wishing can make good things happen					
4. I feel that when I do something wrong there's very little I can do to make it right					

5. I feel that one of the best ways to handle most problems is just not to think about them					
6. I feel that I have a lot of choice in deciding on my career path?					
7. I often feel that whether or not I did my homework had much to do with what kind of grades I got					
8. I feel that when good things happen, they happen because of hard work					
9. I usually feel it was almost useless to try at school, because most other learners were just smarter than I am					
10. I am the kind of person who believes that planning ahead makes things turn out better					
11. Most of the time, I feel that I can change what might happen tomorrow by what I did today					
12. I think that people can get their own way if they just keep trying					
13. I think it's better to be smart than to be lucky					

Career interest scale

Read each statement regarding your career interest. Indicate whether you Like or Dislike the statement by putting a tick or X in the right column. There are no wrong answers.

	Factor 1: Artistic	**Like**	**Dislike**
1	Design packaging of a new product		
2	Create portraits or photograph		
3	Write lyrics or compose music of any kind		
4	Design stage scenery for a play		
5	Design furniture, clothing, or poster		
	Factor 2: Biotic		
1	Watch documentary films or TV programs about animals or other creatures		

2	Observe or record the growth of plants Observe or record the growth of plants		
3	Collect or make biological specimens Collect or make biological specimens		
4	Track or observe wild animals		
5	Observe or record the habits of small animals like ants Observe or record the habits of small animals like ants		
	Factor 3:Conventional		
1	Regularly make neat or update an address book		
2	Check paperwork or products for errors or flaw		
3	Keep detailed records of expenses		
4	Handle daily affairs in office		
5	Classify or put different kinds of items in order Classify or put different kinds of items in order		
	Factor 4: Expressive		
1	Sing or traditional dance for others		
2	Become a public figure		
3	Dress myself out of the ordinary		
4	Attend an event as an award presenter		
5	Become the image endorsement of a product or company		
	Factor 5: Investigative		
1	Explore the causes of a phenomenon or an incident		
2	Verify a scientific theory with practice		
3	Learn about different scientific theories via books or lecture		
4	Study a certain theory in depth through a series of references or data		
5	Apply science to practical problems		
	Factor 6: Operational		

1	Maintain a computer network		
2	Shape metal or plastic with tools		
3	Operate machines or devices		
4	Assemble instruments or meter accurately		
5	Refit computers or other equipment in order to improve their efficiency		
	Factor 7: Social		
1	Talk with people to help make them happy		
2	Help tutoring neighborhood children		
3	Care for poor, sick or lonely people Care about poor, sick or lonely people		
4	Work for a charity		
5	Encourage colleagues when they are feeling down or faced with difficulties		
	Factor 8: Enterprising		
1	Plan for the developmental orientation of a team or company		
2	Take part in marketing social practices		
3	Allocate the human, material or financial resources of an organization		
4	Meet important executives or leaders		
	Pay attention to the sales of listed companies		
	Factor 9: Adventurous		
1	Undertake criminal investigation work		
2	Engage in dangerous rescue work like fire-fighting		
3	Become a professional race driver		
4	Explore uninhabited areas		
5	Climb a perilous peak		

Section C: Social factors

Questionnaire on social factors

This questionnaire is designed to help us gain a better understanding of the kinds of things that affect learners' decision-making process. Please indicate your opinions about each of the statements below by making a tick or X in the appropriate column. The responses are indicated in a 5-point Likert scale, ***Strongly Disagree, Disagree, Neutral, Agree and Strongly Disagree.***

	Peer influence	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	I take important decisions without being influenced by my friends' suggestions					
2	I like to choose a career of my own, irrespective of my friends' advice.					
3	I get more interested in my studies when my friends motivate me.					
4	I chose a career that is similar to my friends.					
5	I get so much of encouraged by my friends to solve difficult issues.					
	Teachers influence					
1	Information I got from my teacher helped me to choose a career					
2	My teacher gives me suggestions about careers.					
3	My teacher encouraged me to take my current subjects.					
4	My teacher motivates me to take own initiative.					
5	My teacher informs me about different opportunities					
	Career information service					
1	I searched the internet for information about careers.					
2	I spoke to a career counsellor at my school about career.					
3	School career days influenced my career choice.					
4	I attended job shadowing or work-site visits.					
5	I completed a questionnaire to find out about my interests and abilities.					
	Influence of older siblings					
1	I share a special bond with my sibling(s).					
2	I enjoy the same activities and style as my sibling(s).					
3	I often go to my older sibling(s) for support and advice.					
4	My older sibling(s) career choice influences my career direction.					

5	I established my individuality apart from my sibling(s).					

Section D: Challenges faced in career decision making

This questionnaire is designed to facilitate a better understanding of the challenges faced by learners in career decision-making process. Please indicate your opinions about each of the statements below by making a tick or X in the appropriate column. The responses are indicated in a 5-point Likert scale, ***Strongly Disagree, Disagree, Neutral, Agree and Strongly Disagree.***

	Items	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	I lack knowledge on which career is best for me					
2	I am not sure about my career preferences yet					
3	I believe that a career choice is a one-time choice and a life-long commitment					
4	I am usually afraid of failure					
5	People who are important to me do not agree with the career options I am considering					
6	I don't know how to combine the information I have about myself with the information I have about the different careers					
7	I don't have the motivation to make the decision now					
8	I do not know what steps I have to take to make the right career decision					
9	I usually feel that I need confirmation and support for my decisions					
10	I do not have enough information about my competencies and/or about my personality traits					
11	I do not have enough information about the characteristics of the occupations and/or training program that interest me					

Section E: Career decision making scale

This questionnaire contains some statements that learners commonly make about their educational and occupational plans. Some of the statements may apply to you; others may not. Please read through them and indicate how closely each item describes you in your thinking about a career or an educational choice by putting a thick or X on the appropriate column on the answer sheet.
Which career do you want to pursue in future?----------

	Items	**Exactly like me 1**	**Very much like me 2**	**Only slightly like me 3**	**Not at all like me 4**
1	I have decided on a career and feel comfortable with it.				
2	I also know how to go about implementing my choice.				
3	If I had the skills or the opportunity, I know I would be but this choice is really not possible for me. I haven't given much consideration to any other alternatives.				
4	Several careers have equal appeal to me. I'm having a difficult time deciding among them.				
5	I know I will have to go to work eventually, but none of the careers I know about appeal to me.				
6	I know what I'd like to be but l'd be going against the wishes of someone who is important to me if I did so. Because of this, it's difficult for me to make a career decision right now. I hope I can find a way to please them and myself.				
7	Until now, I haven't given much thought to choosing a career. I feel lost when I think about it because I haven't had many experiences in making decisions on my own and I don't have enough information to make a career decision right now.				
8	I feel discouraged because everything about choosing a career seems so "risky" and uncertain; I feel discouraged. So much so that I'd like to put off making a decision for the time being.				
9	I thought I knew what I wanted for a career, but recently I found out that it wouldn't be possible for me to pursue it. Now l've got to start looking for other possible careers.				
10	I want to be absolutely certain that my career choice is the "right'" one, but none of the careers I know about seem ideal for me.				
11	Having to make a career decision bothers me l'd like to make a decision quickly and get it over with I wish I could take a test that would tell me what kind of career I should pursue.				
12	I know what l'd like to major in, but I don't know what careers it can lead to that would satisfy me.				

13	I can't make a career choice right now because I don't know what my abilities are.				
14	I don’t know what my interests are. A few things "turn me on" but I’m not certain that they are related in any way to my career possibilities.				
15	So many things interest me and I know I have the ability to do well regardless of what career I choose. It’s hard for me to find just one thing that I would want as a career.				
16	I have decided on a career, but I’m not certain how to go about implementing my choice. What do I need to do to become certain anyway?				
17	I need more information about what different occupations are like before I can make a career decision				
18	I think I know what to major in, but feel I need some additional support for it as a choice for myself.				

APPENDIX B: SEMI-STRUCTURED INTERVIEW SCHEDULE

1. What do you want to study once you have completed secondary school?
2. How has the way you perceive your inner self affect your career decision?
3. Do you believe that you have capability to address challenges that you face or you need external support? How does this affect your career decision?
4. Please explain what has influenced your career decision?
5. What influence does your family have on your career decision?
6. How did your peers/friends influence your career decision?
7. Please explain whether financial reasons had a part to play in your choice of career?
8. Which particular subject has influence your career choice? Explain your response.
9. Explain the influence that your mother /father/care giver had on your decision to follow the chosen career?
10. Did you receive any career counselling while making your career decision?
11. How has your environment (society/community) influenced your career decision-making?
12. What influence do your siblings have on your career choice decision making?
13. What are the challenges that you experienced when making career decisions?
14. How old are you and what is your career choice once you have completed Grade 12?
15. When you were young, what was your anticipated career choice?
16. Explain whether that career choice has changed? (What influenced you to change your career choice?)
17. Do you think that your age has an influence on your career decision-making?
18. Explain whether you believe that certain vocations or jobs are specifically for men/women?
19. What are your thought regarding your chosen career? (Do you as a female or male think that there is equality in this career, explain?)
20. Finally, please clarify whether your career decision was based on your gender.

APPENDIX C:

Participant Information Sheet-Learner (interview)

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

11 January 2021

Dear Learner

My name is Oluwakemi B. Ajayi and I am a registered PhD student in school of education at the University of the Witwatersrand, Johannesburg. As part of my studies, I have to undertake a research project, and I am investigating psycho-social factors influencing career decision-making of Grade 12 learners under the supervision of Dr Moeniera Moosa and Dr Peter Aloka. The aim of this research project is to identify psychological and social factors that influence Grade 12 learners' career decision-making in township Secondary Schools.

As part of this project, I would like to invite you to take part in an online interview, using zoom or WhatsApp whichever is available and convenient at your school. This interview will take an average of 30 to 45 minutes. With your permission, I would also like to record the interview using an audio recording device. The interviews will not involve all learners, not all learners who participate in the questionnaire have to participate in the interviews.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation and there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The interview will be completely confidential and anonymous as I will not be asking for your name or any identifying information, and the information you give to me will be held securely and not disclosed to anyone else. The interview will be after school in a secluded classroom or office away from public audible range, your response will not be shared with your teacher and the interviews will be conducted in English to assist with the data collection process. I will be using a pseudonym (false name) to represent your participation in my final research report and publications. If you experience any distress or discomfort at any point in this process, we will stop the interview and resume another time. You can contact your school counsellor or Life Orientation teacher (name will be inserted for each school) if you feel distressed or contact LIFE LINE on toll free number 0808 808 8000.

If you have any questions during or afterwards about this research, feel free to contact me or my supervisors on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you (optional).The data collected from this research project will be stored in a password protected computer and will be kept for 5 years. If you have any concerns or complaints regarding the ethical

procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,

Oluwakemi B. Ajayi
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APPENDIX D

Participant Information Sheet-Learner (Questionnaire)

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

11 January 2021

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My name is Oluwakemi B. Ajayi and I am a registered PhD student in school of education at the University of the Witwatersrand, Johannesburg. As part of my studies, I have to undertake a research project, and I am investigating psycho-social factors influencing career decision-making of Grade 12 learners under the supervision of Dr Moeniera Moosa and Dr. Peter Aloka. The aim of this research project is to identify psychological and social factors that influence Grade 12 learners' career decision-making in township Secondary Schools.

As part of this project, I would like to invite you to take part in completing a questionnaire. This questionnaire will take around 30 to 45 minutes.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation and there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The questionnaire will be completely confidential and anonymous as I will not be asking for your name or any identifying information, and the information you give to me will be held securely and not disclosed to anyone else or your teacher. I will be using a pseudonym (false name) to represent your participation in my final research report and publications. If you experience any distress or discomfort at any point in this process, we will stop the interview and resume another time. You can contact your school counsellor or Life Orientation teacher (name will be inserted for each school) if you feel distressed or contact LIFE LINE on toll free number 0808 808 8000.

If you have any questions during or afterwards about this research, feel free to contact me or my supervisors on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you (optional). The data collected from this research project will be stored in a password protected computer and will be kept for 5 years. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,

Oluwakemi B. Ajayi

Researcher: Oluwakemi B. Ajayi, 2388168@students.wits.ac.za

Supervisor: Dr Moeniera Moosa, moeniera.moosa@wits.ac.za, 011 717 3085

Co-supervisor: Dr Peter Aloka, peter.aloka@wits.ac.za, 011 717 3098

APPENDIX E

Participant Information Sheet-Parent (Interview)



11- 01-2021

Dear Parent

My name is Oluwakemi B. Ajayi and I am a registered PhD student in the school of education at the University of the Witwatersrand, Johannesburg. As part of my studies, I have to undertake a research project, and I am investigating psycho-social factors influencing career decision-making of Grade 12 learners under the supervision of Dr Moeniera Moosa and Dr Peter Aloka. The aim of this research project is to identify psychological and social factors that may influence Grade 12 learners' career decision-making in township Secondary Schools.

As part of this project, I would like to invite your child to take part in an online interview using zoom or WhatsApp whichever is available and convenient at your child's school. This interview will take around 30 to 45 minutes. With your permission, I would also like to record the interview using an audio recording device. The interviews will not involve all learners, not all learners who participate in the questionnaire have to participate in the interviews.

There will be no personal costs to your child if s/he participates in this project. Your child will not receive any direct benefits from participation and there are no disadvantages or penalties if your child does not choose to participate or if your child withdraws from this study. S/he may withdraw at any time or not answer any question if s/he does not want to. The online interview will be completely confidential and anonymous as I will not be asking for your child's name or any identifying information, and the information s/he gives to me will be held securely and not disclosed to anyone else. The interview will be after school in a secluded classroom or office away from public audible range, your response will not be shared with your teacher and the interviews will be conducted in English to assist with the data collection process. I will be using a pseudonym (false name) to represent your child's participation in my final research report and publications. If s/he experiences any distress or discomfort at any point during this process, I will stop the interview and resume another time. S/he can contact the school counsellor or Life

Orientation teacher (name will be inserted for each school) if s/he feels distressed or contact LIFE LINE on toll free number 0808 808 8000.

If you have any questions during or afterwards about this research, feel free to contact me or my supervisors on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you (optional). The data collected from this research project will be stored in a password protected computer and will be kept for 5 years. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,

Researcher: Oluwakemi B. Ajayi

2388168@students.wits.ac.za

Supervisor: Dr Moeniera Moosa

moeniera.moosa@wits.ac.za

011 717 3085

Co-supervisor: Dr Peter Aloka
peter.aloka@wits.ac.za,
011 717 3098

APPENDIX F

Participant Information Sheet-Parent (Questionnaire)



11- 01-2021

Dear Parent

My name is Oluwakemi B. Ajayi and I am a registered PhD student in the school of education at the University of the Witwatersrand, Johannesburg. As part of my studies, I have to undertake a research project, and I am investigating psycho-social factors influencing career decision-making of Grade 12 learners under the supervision of Dr Moeniera Moosa and Dr Peter Aloka. The aim of this research project is to identify psychological and social factors that may influence Grade 12 learners' career decision-making in township Secondary Schools.

As part of this project, I would like to invite your child to take part in completing a questionnaire. This questionnaire completion will take around 30 to 45 minutes.

There will be no personal costs to your child if s/he participates in this project. Your child will not receive any direct benefits from participation and there are no disadvantages or penalties if your child does not choose to participate or if your child withdraws from this study. S/he may withdraw at any time or not answer any question if s/he does not want to. The questionnaire will be completely confidential and anonymous as I will not be asking for your child's name or any identifying information, and the information s/he gives to me will be held securely and not disclosed to anyone else or s/he teacher. I will be using a pseudonym (false name) to represent your child's participation in my final research report and publications. If s/he experiences any distress or discomfort at any point during this process, I will stop the interview and resume another time. S/he can contact the school counsellor or Life Orientation teacher (name will be inserted for each school) if s/he feels distressed or contact LIFE LINE on toll free number 0808 808 8000.

If you have any questions during or afterwards about this research, feel free to contact me or my supervisors on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you (optional). The data collected from this research project will be stored in a password protected computer and will be kept for 5 years. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely

Researcher: Oluwakemi B. Ajayi, 2388168@students.wits.ac.za

Supervisor: Dr Moeniera Moosa, moeniera.moosa@wits.ac.za, 011 717 3085

Co-supervisor: Dr Peter Aloka, peter.aloka@wits.ac.za, 011 717 3098

APPENDIX G

103Ynonne Court
1st Avenue
Springs
1559

The Principal/SGB Chairperson
Name of school
Address of school

Dear Sir/Madam

PERMISSION TO CONDUCT RESEARCH AT YOUR SCHOOL

My name is…….. I am a registered PhD student in the School of Education at the University of the Witwatersrand.

I am conducting research on the Psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in the Gauteng East District in South Africa. The reason why I have chosen your school is because your school has been identified as one of the township schools in this district

My research involves collecting data using a questionnaire and an online interview with Grade 12 learners. All Grade 12 learners who have given consent and assent to complete the questionnaire will be invited. The questionnaire will allow me to obtain first hand information on psychological and social factors influecing learners career decision-making. A mutually convinient time and venue for the questionnaire completion will be chosen by the learners and the teacher in-charge. I will ensure that the time selected will not disrupt the school's timetable or learners class attendance. The questionnaire completion will take 30 to 45 minutes.

This study will not interfere with the school's timetable in any way as interviews with Grade 12 learners will be conducted online using zoom or WhatsApp after school hours or during any free periods that learners might have. The interviews will include learners who have given their consent and assent to be interviewed. The interviews will permit me to gather in-depth information on learner's opinions, thoughts, experiences, and feelings concerning the psychological and social factors that influence their career decision-making. The interview will take 30 to 45 minutes.

Before the research begins I will get learners' written assent and as well as their parents written consent. . Only learners who have given their assent along with their parent consent will be allowed to participate in the research. Learners and parents will be reassured that they can withdraw their permission to participate in this research at any time without any penalty. There is low risk in participating in this study. The participants will not be paid for this study. If learners experience any distress or discomfort at any point

during this process, I will stop the interview and resume at another time. Learners will also be informed that they can contact the school counsellor or Life Orientation teacher (name will be inserted for each school) if they feel distressed or contact LIFE LINE on toll free number 0808 808 8000.

The names of the research participants and identity of the school will be kept confidential at all times, and pseudonyms will be assigned to maintain anonymity in all academic writing about the study. Your individual privacy will be maintained in all published and written data resulting from the study.

If you have any questions during or afterwards about this research, feel free to contact me or my supervisors on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you. The data collected from this research project will be stored in a password protected computer and will be kept for 5 years. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,

Oluwakemi B. Ajayi

2388168@students.wits.ac.za

Supervisor: Dr Moeniera Moosa

011 717 3085

moeniera.moosa@wits.ac.za,

Co supervisor: Dr Peter Aloka,

011 717 3098

aloka.peter@wits.ac.za

APPENDIX H: INFORMED CONSENT FOR PARENT

(QUESTIONNAIRE)

Psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng South Africa

Oluwakemi B. Ajayi

I,…….., agree that my child……. (Child's name) may participate in this research project. The research has been explained to me and I understand what my child's participation will involve. I agree to the following:

(Please circle the relevant options below).

Permission to complete questionnaire

I agree that my child may complete questionnaires. YES/NO

I know that s/he can withdraw from the questionnaire completion at any time YES/NO

Informed Consent

I understand that:

- my child's name and information will be kept confidential and safe and that my child's name and the name of the school will not be revealed.
- s/he does not have to answer every question and can withdraw from the study at any time.
- s/he can ask not to be audiotaped
- all the data collected during this study will be destroyed within 3-5 years after completion of the project.
- I agree that the researcher may use my child's quotes that are anonymised in the research report/publications.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

…… (Signature)

…… (Name of participant)

…… (Date)

…… (Signature)

…… (Name of person seeking consent)

…… (Date)

APPENDIX I: INFOMED CONSENT FORM FOR PARENT

(INTERVIEW)

Psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng South Africa

Oluwakemi B. Ajayi

I,…….., agree that my child……. (Child's name) may participate in this research project. The research has been explained to me and I understand what my child's participation will involve. I agree to the following:

(Please circle the relevant options below).

Permission to be interviewed

I agree that my child may be interviewed	YES/NO
I agree that my child may be audiotaped during the interview	YES/NO
I know that the audiotapes will be used for this project only	YES/NO
I know that s/he can withdraw from the interview at any time	YES/NO

Informed Consent

I understand that:

- my child's name and information will be kept confidential and safe and that my child's name and the name of the school will not be revealed.
- s/he does not have to answer every question and can withdraw from the study at any time.
- s/he can ask not to be audiotaped
- all the data collected during this study will be destroyed within 3-5 years after completion of the project.
- I agree that the researcher may use my child's direct quotes that are anomymised in the research report/publications

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

…… (Signature)

…… (Name of participant)

…… (Date)

…… (Signature)

…… (Name of person seeking consent)

…… (Date)

APPENDIX J: INFOMED CONSENT FORM FOR LEARNER

(INTERVIEW)

Psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng South Africa

Oluwakemi B. Ajayi

I,…….., agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following:

(Please circle the relevant options below).

Permission to be interviewed

I agree to be interviewed	YES/NO
I agree to be audiotaped during the interview	YES/NO
I know that the audiotapes will be used for this project only	YES/NO
I know that I can withdraw from the interview at any time	YES/NO

Informed Consent

I understand that:

- my name and information will be kept confidential and safe and that my name and the name of my school will not be revealed.
- I do not have to answer every question and can withdraw from the study at any time.
- I can request not to be audiotaped.
- all the data collected during this study will be destroyed within 3-5 years after completion of the project.
- I agree that the researcher may use direct quotes that are anonymised in the research report/publications.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

…… (Signature)

…… (Name of participant)

…… (Date)

…… (Signature)

…… (Name of person seeking consent)

…… (Date)

APPENDIX K: INFOMED CONSENT FORM FOR LEARNER

(QUESTIONNAIRE)

Psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng South Africa

Oluwakemi B. Ajayi

I,…….., agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following:

(Please circle the relevant options below).

Permission to complete questionnaire

I agree to complete questionnaires.	YES/NO
I know that I can withdraw from the questionnaire completion at any time	YES/NO

Informed Consent

I understand that:

- my name and information will be kept confidential and safe and that my name and the name of my school will not be revealed.
- I do not have to answer every question and can withdraw from the study at any time.
- I can request not to be audiotaped.
- all the data collected during this study will be destroyed within 3-5 years after completion of the project.
- I agree that the researcher may use direct quotes that are anonymised in the research report/publications.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

…… (Signature)

…… (Name of participant)

…… (Date)

…… (Signature)

…… (Name of person seeking consent)

…… (Date)

APPENDIX L: ASSENT FORM FOR LEARNER (UNDER 18)

(QUESTIONNAIRE)

Psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng South Africa

Oluwakemi B. Ajayi

I,…….., agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following:

(Please circle the relevant options below).

Permission to complete questionnaire

I agree to complete questionnaires.	YES/NO
I know that I can withdraw from the questionnaire completion at any time	YES/NO

Informed Assent

I understand that:

- my name and information will be kept confidential and safe and that my name and the name of my school will not be revealed.
- I do not have to answer every question and can withdraw from the study at any time.
- I can request not to be audiotaped.
- all the data collected during this study will be destroyed within 3-5 years after completion of the project.
- I agree that the researcher may use direct quotes that are anonymised in the research report/publications.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

…… (Signature)

…… (Name of participant)

…… (Date)

…… (Signature)

…… (Name of person seeking assent)

…… (Date)

APPENDIX M: ASSENT FORM FOR LEARNER (UNDER 18)

(INTERVIEW)

Psycho-social factors influencing career decision-making of Grade 12 learners in township Secondary Schools in Gauteng South Africa

Oluwakemi B. Ajayi

I,…….., agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following:

(Please circle the relevant options below).

Permission to be interviewed

I agree to be interviewed	YES/NO
I agree to be audiotaped during the interview	YES/NO
I know that the audiotapes will be used for this project only	YES/NO
I know that I can withdraw from the interview at any time	YES/NO

Informed Assent

I understand that:

- my name and information will be kept confidential and safe and that my name and the name of my school will not be revealed.
- I do not have to answer every question and can withdraw from the study at any time.
- I can request not to be audiotaped.
- all the data collected during this study will be destroyed within 3-5 years after completion of the project.
- I agree that the researcher may use direct quotes that are anonymised in the research report/publications.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email hrecnon-medical@wits.ac.za

…… (Signature)

…… (Name of participant)

…… (Date)

…… (Signature)

…… (Name of person seeking assent)

…… (Date)

APPENDIX N: PROOF OF LANGUAGE EDITING

14th August 2022

To whom it may concern

Dear Sir/Madam,

REF: CERTIFICATE OF EDITING - OLUWAKEMI BOLANLE AJAYI, STUDENT NO: 2388168, UNIVERSITY OF THE WITWATERSRAND

This document certifies that the thesis titled '*Psycho-Social Factors Influencing Career Decision-Making of Grade 12 Learners in Township Secondary Schools in Gauteng South Africa'* was proofread and edited by Dr. Robert Onyango Ochieng'. The editor endeavoured to ensure that the authors' intended meaning was not altered during the review. All amendments were tracked with the Microsoft Word 'Track Changes' feature. Therefore, the author had the option to reject or accept each change individually.
Thesis title: Psycho-Social Factors Influencing Career Decision-Making of Grade 12 Learners in Township Secondary Schools in Gauteng South Africa
Author: OLUWAKEMI BOLANLE AJAYI, University of the Witwatersrand
Date: 14th August 2022

Thank you



Dr. Robert Onyango Ochieng', PhD.
Languages, Literary and Communication Studies
roochieng@jooust.ac.ke
Tel:+254 728 809 761

APPENDIX O: INTERVIEW TRANSCRIPT

INTERVIEW TRANSCRIPT – SCHOOL ONE

PARTICIPANT ONE

K: What do you want to do once you have completed Grade 12?

P1: I will like to study for criminology anthropology and also Psychology. I want to go to the university to further my study. They all fall under medical science that is what I know. I know that criminology and anthropology will make me able to do the career that I want because I want to be a forensic anthropology, I have done research and it shows that there is no really a forensic scientist in South Africa. Forensic anthropologist work with human bones kind of and I want to work with the court to help them find criminals. Actually, I wanted to go outside of South Africa but then the funding and stuffs, I'm thinking I might not be able to, so I'm thinking of University of Pretoria or University of Cape Town.

K: How has the way you perceive your inner self affect your career decision?

P1: Well I've always wanted to study medicine, I've always wanted to study science but not to work with people, like with blood, when I was in Grade 9, I wanted to be a Surgeon Doctor but then it came to my mind and I would read a lot of newspaper articles about Doctors who performed surgeries there was this one time I read from new paper about Doctors in China who performed surgery on a man he was in his 60s and they found a toothpick on his heart ultra, so, like that scared me, imagine I am performing a surgery on somebody and mistake occurs and the person dies, so instead of taking a risk of working with someone who's alive, I'll rather work with someone who is dead. Because it causes less stress and not worry about cutting the wrong arteries, unlike working with someone who is dead to find the cause of dead. So my inner self affected my decision to become a surgeon because I don't want to make mistakes with people's lives. Because everything that I do, I want to make sure that I do it very well into perfection or at least to maximum best. If I do mistake it shouldn't be a mistake that could cause people's life, so this is why I preferred doing forensic on dead people. Now the risks are less and I wouldn't have to, imagine a person has family and now the person dies in my hand and I will be responsible because I made a careless mistake. I am a very considerate person who likes to take care of people.

K: Do you believe that you have capability to address challenges that you face or you need external support? How does this affect your career decision?

P1: I am a person who prefers working alone instead of working with people; I know I can try over and over again until I get it correct, so I know I am capable. I had to change from being a Surgeon Doctor to being an Anthropologist. It didn't affect me that much because I fell in love with forensic well more than I did with medical science, like the Surgeon, with the Surgeon practice because I've been watching films like NCIS and it has been my favourite now that I want to be a forensic pathologist but then I realized that they only focus on the flesh and they don't go deeper but I want to go deeper actually to look at the entire body, from the skin down to the bones. Like what I realized from one movie that I watched, when babies are born, they look more like the father than the mother, even with the facial structures, the bones and the represents more of the father than the mother but when they grow up that is when they take the parent with dominion genes. So, because of the challenges that I perceived with becoming a Surgeon, I was able to dig deep into other profession and I fell for it more than the previous options.

K: Please explain what has influenced your career decision?

P1: So what I like more about my new career decision is that not many people know about it and I also found out that not many black women are doing it, so I felt let me add to the statistics of women doing it, so that when I graduate and I am a forensic Anthropologist I can also help other kids who come to me who doesn't know what to study but has love for the bones and the dead and mystery, so that I can be able to teach and educate them that you can do this because not a lot of people do that and especially for our race, African a few people know about it and few people are actually doing it, so I was also influenced about since not a lot of people are doing it and I want to be part of people who are doing it, it will be written in the history book that there was once a girl lived in the township of Tsakane and she is now one of the best forensic Anthropologist of the world of our time. It's a journey.

K: What influence does your family have on your career decision?

P1: Well, they don't have any influence because my mother raised me to be able to follow what I believe in even when everyone is against it, she gave me the freedom to choose what I want without

being in the way of me doing it so when I told them they were surprised but they still supported it in the end. Because if you were born to please other people there won't be any progress so she always says do whatever you think is the best even when everyone is against it. She wanted to be a nurse and she couldn't be because her mother died early and she was young so she had to grow up and take care of her siblings and she was not able to complete her studies. So currently she is cooking for people; catering.

K: How did your peers/friends influence your career decision?

P1: There is this friend of mine, it happened that she and I never discuss the career that we wanted to do but there is this one time that a teacher of ours called us to his office to talk about the progress in our school work and everything, then he asked about what we will like to do and that time I wanted to be a forensic Pathologist or a Surgeon Doctor and he asked me a lot of question and all that. Then it happened that when it was her turn to be asked, she wanted to do the same thing too. She also said she wanted to be a forensic scientist then my second option is Surgeon and I was wondering how come because we had never discussed it, it was the first time we were actually talking about it. From then we've been helping each other with choosing the specific part of forensic that we want to work on and specialize in, then she ended up being afraid and then she changed but the more I do research the more I fell in love with it. So, she was actually the thrilled friend who motivated me to continue even though she later changed. She hasn't decided on what to do next, but she has been able to influence me positively.

K: Please explain whether financial reasons had a part to play in your choice of career?

P1: When I chose the career that I want to do I never thought about the financial struggle that I may encounter on the journey but since I am in Matric, I started to think about it that my family does not have money because last year I also researched about the fees to study at the university and I know my family cannot afford it, so I did research more about scholarship and studying abroad because that has always been my goal. So, I never thought of the financial aspect until I got to Grade 12 and I started thinking about it with our country in financial crisis and the reason why there are no forensic Anthropologists in South Africa is because our country is poor. This is what I love and this is what I like to do so I have to work hard and as my study this year so that I can find financial help. So, with all these in mind it's making me to rethink my career decision, if

I cannot become a Forensic Anthropologist, I will like to be a genetic counselor. I kind of like genetic counseling but the love that I have is for Forensic and I'm still stuck with whether I should leave it for now or not. Because I think the time has come for me to do something that I really love to do since I was in Grade 9.

K: Which subject /s have influenced your career choice? Explain your response.

P1: That will be Mathematics, I've always love Maths and since I was in primary school, I've always been good at it. Even when I didn't practice enough, I will always be the best in class, so when I got to Grade 9 that was when I noticed that I focused too much on this subject and neglect other subject, so that is when I decided to give equal attention to all the subject that I am doing. So, Mathematics has always been my favourite subject though I have found new love for Life science and Physical sciences. What I like about Forensic is it includes the three subjects, like when I was reading the news about AKA fiancée who fell from the building and I was thinking that we can determine if the person was pushed or if she fell by using what we learned in Physical sciences in BPM because when a person is pushed it means there is more energy in the person falling and the person will reach the floor faster than when a person fall, like when a body is dropped. So, I felt I should focus more on other subjects too because even when I passed other subjects with 50s it does not matter to me as long as I passed but I've always made sure that I don't get less than 80% in Mathematic then I realized that it's like a mother showing love to one kid and neglecting other kids. So, I decided to share the love equally for all my subjects and I am actually doing well in all my subjects just as I am doing in Mathematics.

K: Explain the influence that your mother /father/care giver had on your decision to follow the chosen career?

P1: Because my mother had always wanted to be a nurse but could not achieve that because of the struggle she faced while growing up, it made me to have that positive mindset that no matter what I face in life, I know what I want to be and I never going to give up on it so my mother got fired last year September, I called her and told that mama remember you've always wanted to be a nurse why don't go and study and be what you had wanted to be and she said oh she's getting old that she doesn't have the energy that she used to have when she was growing up. So, I said to myself that because my mother couldn't succeed to fulfill her dream, I shouldn't be like her, because if

my mother had so much love for nursing and couldn't end up being a nurse, I can't be the same, like I need to be different from her. I need to make sure that no matter what, I succeed. So, in a way my mother failure had encouraged me or motivated me to work hard in achieving my goal. I don't want to fail where she had failed, I don't want to repeat history.

K: Did you receive any career counselling while making your career decision?

P1: No**,** I've never received any career counseling. I've always known what I wanted to study. I kind of did the research on my own with the help of my friend but I did most of the work myself. So, it was during my research that I found all the career choices like; Psychology, Anthropology, Criminology, Pathology and even genetics counseling and then made one options from all of these. The fact that I want to work with human body and not someone who is alive that my mistake could affect that person's health but rather the mistakes that I would be making will be encouraging me, motivate me or even push me to work better. Plus, a lot of people are not doing my chosen career made me love it the more and my love for science.

K: How has your environment (society/community) influenced your career decision-making?

P1: I live in a community where girls my age are falling pregnant and boys are smoking drugs and all of that. I just said to myself that I want to be different from everyone, from the youth in my community so I told myself that instead of doing what everybody is doing, I rather be different and do what is best for me that I know is going to change my life and improve my life for the better and be able to take my family out of there because I kind of feel like it's toxic, when you do something good for yourself, people don't usually support you by saying all the bad thing about it and they demotivate you. I need to work so that I can move out of that environment because is not good for me because the more I stay in that environment I might lose all the motivation and the encouragement that I have. I know people who are smart and who did well in their Matric but because they didn't research well enough, work hard they are still staying in that same environment, most have lost that motivation. So, my environment motivated me to be focus and goal driven in order for me to achieve my goal.

K: What influence do your siblings have on your career choice decision making?

P1: My siblings are more athletics than I am, if I may say I am more gifted academically than in sport. They are better in sport than in academics, books and reading. My two brothers want to be soccer stars, so they told me you can do what you want to do, I am not even good at running, so I decided to do what I'm good at, like something that has to do with books and calculations. But we relate together and I always encourage them to have a plan B in case they get injured they should think of something they can fall back into if this doesn't work out, it might not be school related because I know not everyone is going to succeed and be billionaire. I want to study the serial killer because they are very smart, creative in killing people and very intimidating, so I want to be able to study them.

K: What are the challenges that you experienced when making career decisions?

P1: One challenge that I experienced when making my career decision was to have to choose from many occupation in forensic that I want to do but then it was an easy decision because I wanted to work with a dead person to look at the cause of death and then I though oh forensic pathology doesn't really go deep because they will look at the skin and then give the remains to another person, then I thought I want to do everything, the skin, bones and see what made it to turn out this way. The only challenge I faced was to choose one specific thing around forensic. I went to stay with my mother sister when I lost my father, she treated me badly, I had to do everything for her children, like things that I don't used to when I was staying with my mother and I said to myself that I need to do something for myself to make my life better.

APPENDIX P: A SAMPLE OF COMPLETED QUESTIONNAIRE

QUESTIONNAIRE FOR LEARNERS

CAREER DECISION-MAKING SCALE (CDMS)

This questionnaire seeks to assess psycho-social factors influencing career decision-making of Grade 12 learners in township secondary school in Gauteng. The study is part of the researcher's Doctor of Education in Psychology Degree at the University of the Witwatersrand Johannesburg and should assist learners, career guidance and counselling services in career decision-making process at Secondary Schools. You do not need to write your name as no respondent will be traced or identified from this study whatsoever as confidentiality and anonymity are guaranteed. There is no right or wrong answers. The researcher is only interested in your personal opinion. All data and information generated from this study will be treated as strictly private and confidential. You are therefore kindly requested to complete the questionnaire as honest as possible. Thank you for participating in this study.

Section A: Biographical information

Kindly indicate your response to each question by placing a tick ☐ in an appropriate box.

Age:

15- 16	
17-18	✓
19 - above	

Gender:

Male	
Female	✓

Parental level of education:

University level	
College level	
Secondary school level	✓
Primary school level	
No formal schooling	

Family income:

Less than R5,000	
R5,000-R10,000	✓
R10,000-R15,000	
R15,000-R20,000	
R20,000 above	

Parental occupation:

Father's occupation

General labourer	
Professional	
Self employed	✓
Never employed	

Mother'soccupation

Domestic worker	✓
Professional	
Self employed	
Never employed	

Section B: Psychological factors

BIG FIVE INVENTORY (BFI)

Instruction

In the table below are some characteristics that may describe you. Read each statement and put a tick or X under the score that most accurately indicates the extent to which you agree or disagree with that statement. The scoring key is as follows: ***1. Strongly Disagree***

2. Disagree, 3. Neither agree nor disagree (Neutral); 4. Agree; 5. Strongly Agree

A score of 5 indicates Yes, you strongly agree with the statement, and 1 indicates No, you strongly disagree with it.

	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I am talkative				X	
2	I tend to find fault with others		X			
3	I do my job well					X
4	I am always depressed		X			
5	I am original, come up with new ideas				X	
6	I am reserved				X	
7	I am helpful and unselfish with others					X
8	I can be somewhat careless				X	
9	I am relaxed and handle stress well			X		
10	I am curious about many different things				X	
11	I am full of energy			X		
12	I start quarrels with others		X			
13	I am a reliable learner					X
14	I Can be nervous				X	
15	I am a deep thinker				X	
16	I generate a lot of enthusiasm		X			
17	I have a forgiving nature					X
18	I tend to be disorganised		X			
19	I worry a lot			X		
20	I have an active imagination				X	
21	I tend to be quiet			X		

22	I am generally trusting				X	
23	I tend to be lazy	X				
24	I am emotionally stable, don't get easily upset				X	
25	I am inventive					X
26	I have an assertive personality				X	
27	I can be cold and aloof			X		
28	I persevere until the task is finished				X	
29	I can be moody	X				
30	I value artistic, aesthetic experiences		X			
31	I am sometimes shy, keep to myself				X	
32	I am considerate and kind to almost everyone					X
33	I do things efficiently					X
34	I remain calm in stressful situations				X	
35	I prefer work that has a routine				X	
36	I am outgoing, sociable		X			
37	I am sometimes rude to others	X				/
38	I make plans and follows through with Them				X	
39	I get nervous easily		X			
40	I like to reflect and play with ideas				X	
41	I have few artistic interests			X		
42	I like to cooperate with others					X
43	I am easily distracted		X			
44	I am sophisticated in art, music, or literature			X		

Self-efficacy scale

This scale is a self-report measure of self-efficacy

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for learners in their decision-making process. Please indicate your opinions about each of the statements below by making a tick or X in the appropriate column. The responses are indicated in a 4-point Likert scale. ***Not at all true, Hardly true, Moderately true and Exactly true.***

Items	Not at all true 1	Hardly true 2	Moderately true 3	Exactly true 4
1. I can learn what is being taught in class	□	□	□	X
2. I can figure out anything if I try hard enough	□	□	□	X
3. If I practiced every day, I could develop just about any skill	□	□	□	X
4. Once I've decided to accomplish something that's important to me, I keep trying to accomplish it, even if it is harder than I thought.	□	□	□	X

22	I am generally trusting				X	
23	I tend to be lazy	X				
24	I am emotionally stable, don't get easily upset				X	
25	I am inventive					X
26	I have an assertive personality				X	
27	I can be cold and aloof			X		
28	I persevere until the task is finished				X	
29	I can be moody	X				
30	I value artistic, aesthetic experiences		X			
31	I am sometimes shy, keep to myself				X	
32	I am considerate and kind to almost everyone					X
33	I do things efficiently					X
34	I remain calm in stressful situations				X	
35	I prefer work that has a routine				X	
36	I am outgoing, sociable		X			
37	I am sometimes rude to others	X				/
38	I make plans and follows through with Them				X	
39	I get nervous easily		X			
40	I like to reflect and play with ideas				X	
41	I have few artistic interests			X		
42	I like to cooperate with others					X
43	I am easily distracted		X			
44	I am sophisticated in art, music, or literature			X		

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This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for learners in their decision-making process. Please indicate your opinions about each of the statements below by making a tick or X in the appropriate column. The responses are indicated in a 4-point Likert scale. ***Not at all true, Hardly true, Moderately true and Exactly true.***

Items	Not at all true 1	Hardly true 2	Moderately true 3	Exactly true 4
1. I can learn what is being taught in class	□	□	□	X
2. I can figure out anything if I try hard enough	□	□	□	X
3. If I practiced every day, I could develop just about any skill	□	□	□	X
4. Once I've decided to accomplish something that's important to me, I keep trying to accomplish it, even if it is harder than I thought.	□	□	□	X

5. I am confident that I will achieve the goals that I set for myself	□	□	□	□ X
6. When I'm struggling to accomplish something difficult, I focus on my progress instead of feeling discouraged.	□	□	□	□ X
7. I will succeed in whatever career path I choose.	□	□	□	□ X
8. I believe hard work pays off.	□	□	□	□ X
9. I think no matter who you are, you can significantly develop your level of skills and talent.	□	□	□	□ X
10. I can change my basic level of ability considerably.	□	□	□	□ X

Locus of Control Questionnaire

Complete the following questionnaire by choosing the statement that the extent to which you agree with the most by putting a tick or X in the correct column.

The scoring key is as follows: ***1. Strongly Disagree2. Disagree. 3. Neither agree nor disagree (Neutral); 4. Agree: 5. Strongly Agree***

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Most of the time, I do feel that getting good grades meant a great deal to me					X
2. I believe that if somebody studies hard enough he or she can pass any subject					X
3. I believe that wishing can make good things happen				X	
4. I feel that when I do something wrong there's very little I can do to make it right	X				
5. I feel that one of the best ways to handle most problems is just not to think about them		X			
6. I feel that I have a lot of choice in deciding on my career path?					X
7. I often feel that whether or not I did my homework had much to do with what kind of grades I got	X				
8. I feel that when good things happen, they happen because of hard work				X	

9. I usually feel it was almost useless to try at school, because most other learners were just smarter than I am	X				
10. I am the kind of person who believes that planning ahead makes things turn out better					X
11. Most of the time, I feel that I can change what might happen tomorrow by what I did today				X	
12. I think that people can get their own way if they just keep trying				X	
13. I think it's better to be smart than to be lucky					X

Career interest scale

Read each statement regarding your career interest. Indicate whether you Like or Dislike the statement by putting a tick or X in the right column. There are no wrong answers.

	Factor 1: Artistic	**Like**	**Dislike**
1	Design packaging of a new product		X
2	Create portraits or photograph		X
3	Write lyrics or compose music of any kind		X
4	Design stage scenery for a play		X
5	Design furniture, clothing, or poster		X
	Factor 2: Biotic		
1	Watch documentary films or TV programs about animals or other creatures	X	
2	Observe or record the growth of plants Observe or record the growth of plants		X
3	Collect or make biological specimens Collect or make biological specimens		X
4	Track or observe wild animals		X
5	Observe or record the habits of	X	

	small animals like ants Observe or record the habits of small animals like ants		X
	Factor 3:Conventional		
1	Regularly make neat or update an address book		X
2	Check paperwork or products for errors or flaw		X
3	Keep detailed records of expenses	X	
4	Handle daily affairs in office	X	
5	Classify or put different kinds of items in order Classify or put different kinds of items in order	X	
	Factor 4: Expressive		
1	Sing or traditional dance for others		X
2	Become a public figure		X
3	Dress myself out of the ordinary		X
4	Attend an event as an award presenter	X	
5	Become the image endorsement of a product or company		X
	Factor 5: Investigative		
1	Explore the causes of a phenomenon or an incident	X	
2	Verify a scientific theory with practice	X	
3	Learn about different scientific theories via books or lecture	X	
4	Study a certain theory in depth through a series of references or data	X	
5	Apply science to practical problems		X
	Factor 6: Operational		
1	Maintain a computer network	X	
2	Shape metal or plastic with tools		X
3	Operate machines or devices	X	
4	Assemble instruments or meter accurately		X
5	Refit computers or other equipment in order to improve their efficiency		X

	Factor 7: Social		
1	Talk with people to help make them happy	X	
2	Help tutoring neighborhood children	X	
3	Care for poor, sick or lonely people Care about poor, sick or lonely people	X	
4	Work for a charity	X	
5	Encourage colleagues when they are feeling down or faced with difficulties	X	
	Factor 8: Enterprising		
1	Plan for the developmental orientation of a team or company	X	
2	Take part in marketing social practices	X	
3	Allocate the human, material or financial resources of an organization		X
4	Meet important executives or leaders	X	
	Pay attention to the sales of listed companies		X
	Factor 9: Adventurous		
1	Undertake criminal investigation work		X
2	Engage in dangerous rescue work like fire-fighting		X
3	Become a professional race driver		X
4	Explore uninhabited areas		X
5	Climb a perilous peak	X	

Section C: Social factors

Questionnaire on social factors

This questionnaire is designed to help us gain a better understanding of the kinds of things that affect learners' decision-making process. Please indicate your opinions about each of the statements below by making a tick or X in the appropriate column. The responses are indicated in a 5-point Likert scale, ***Strongly Disagree, Disagree, Neutral, Agree and Strongly Disagree.***

	Peer influence	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	I take important decisions without being influenced by my friends' suggestions					X
2	I like to choose a career of my own, irrespective of my friends' advice.					X
3	I get more interested in my studies when my friends motivate me.				X	
4	I chose a career that is similar to my friends.			X		
5	I get so much of encouraged by my friends to solve difficult issues.				X	
	Teachers influence					
1	Information I got from my teacher helped me to choose a career					X
2	My teacher gives me suggestions about careers.					X
3	My teacher encouraged me to take my current subjects.			X		
4	My teacher motivates me to take own initiative.					X
5	My teacher informs me about different opportunities					X
	Career information service					
1	I searched the internet for information about careers.					X
2	I spoke to a career counsellor at my school about career.	X				
3	School career days influenced my career choice.	X				
4	I attended job shadowing or work-site visits.	X				
5	I completed a questionnaire to find out about my interests and abilities.	X				
	Influence of older siblings					X
1	I share a special bond with my sibling(s).				X	
2	I enjoy the same activities and style as my sibling(s).					X
3	I often go to my older sibling(s) for support and advice.				X	
4	My older sibling(s) career choice influences my career direction.			X		
5	I established my individuality apart from my					

	sibling(s).				X	

Section D: Challenges faced in career decision making

This questionnaire is designed to facilitate a better understanding of the challenges faced by learners in career decision-making process. Please indicate your opinions about each of the statements below by making a tick or X in the appropriate column. The responses are indicated in a 5-point Likert scale, ***Strongly Disagree, Disagree, Neutral, Agree and Strongly Disagree.***

	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I lack knowledge on which career is best for me				X	
2	I am not sure about my career preferences yet				X	
3	I believe that a career choice is a one-time choice and a life-long commitment					X
4	I am usually afraid of failure					X
5	People who are important to me do not agree with the career options I am considering			X		
6	I don't know how to combine the information I have about myself with the information I have about the different careers				X	
7	I don't have the motivation to make the decision now				X	
8	I do not know what steps I have to take to make the right career decision			X		
9	I usually feel that I need confirmation and support for my decisions				X	
10	I do not have enough information about my competencies and/or about my personality traits				X	
11	I do not have enough information about the characteristics of the occupations and/or training program that interest me				X	

	what my abilities are.				X
14	I don't know what my interests are. A few things "turn me on" but I'm not certain that they are related in any way to my career possibilities.			X	
15	So many things interest me and I know I have the ability to do well regardless of what career I choose. It's hard for me to find just one thing that I would want as a career.				X
16	I have decided on a career, but I'm not certain how to go about implementing my choice. What do I need to do to become certain anyway?			X	
17	I need more information about what different occupations are like before I can make a career decision		X		
18	I think I know what to major in, but feel I need some additional support for it as a choice for myself.		X		